(29)

FINAL REPORT

EXPORT INDUSTRY TECHNOLOGY SUPPORT PROJECT (EXITOS)

(Project Number 596-0165)
(Contract Number 596-01080C-00-6060-00)
(Funded by USAID - CAP)

Submitted To:
Central American Programs (CAP)
United States Agency for International Development
Guatemala City, Guatemala
February, 1995

Bruce L. Brower Ph.D.
Chief of Party
Chemonics International Inc.
2000 M Street, N.W., Suite 200
Washington, DC 20036

Subcontractors:
Agridec
IGI International
Produce Marketing Association
United Fresh Fruit and Vegetable Association

TABLE OF CONTENTS

ACKNOWLEDGMENTS

The EXITOS or PROEXAG II project ran from October 1991 to January 1995. It was my privilege to serve as the project's Chief of Party for its entirety.

Chemonics engaged several subcontractors as part of this effort. **IGI International** (previously InterAmericas Group, Inc.) provided significant support in the area of organizational management and institutional development. **Agridec** was responsible for the local professional staff in areas such as agronomy, post harvest handling, and marketing. The **Produce Marketing Association,** mostly in the person of Nancy Tucker, and the **United Fresh Fruit and Vegetable Association,** mostly in the person of John McClung were valuable contributors to the success of the project. Both associations went well beyond their contractual obligations in support of export development from the Region.

The project staff consisted of an exceptionally talented group of individuals, including professionals from the United States and Central America, who crafted an effort which will generate benefits for the region of increasing value for the foreseeable future. This project owes a great debt to the team of the PROEXAG project which ran from 1986 to 1991, particularly the vision and energetic leadership of John E. Lamb, who served as that project's Chief of Party and later as the EXITOS project supervisor. Peter Bittner ably supervised the project from the Chemonics home office.

It has been a rewarding experience to work with the team of Dale T. Krigsvold, who worked on Post Harvest, Integrated Pest Management, Marketing, Pesticide Use, and Regulatory Issues; José Mondoñedo who worked in the area of Production, with emphasis on flowers and fruits; Mark Gaskell who also worked in the area of Production, with emphasis on vegetables; William Barbee worked for the first two years in the area of Institutional Development and Regulatory Affairs; and Ricardo Frohmader who, for the first year of the project, was the Marketing Advisor.

The project was fortunate to find a cadre of local professional assistants who were, as a group, high achievers. They included Richard Fisher, Javier Siliezar, Carlos Azmitiz, Karl Ufer, Margo Dannemiller, Walter de la Cruz, Israel Gomez, Daniel Duarte, Felix Ruano, Lucia de Solorzano and Karla Tay. Special mention is worthy of Marcos Moreno who almost single handedly managed project activities in Panama. This project required agility and adaptability on the part of the support staff, who were more than equal to the task. One of the final project products was a CD-ROM set containing much of the project's valuable library. That effort succeeded largely due to the organization and persistence of Karla Tay.

The project support staff included too many to name individually. They were, as a group, professional and indispensable. Margaret Luttmann and Armando Soto, in particular were Gibralters for the project. They were steady, dependable, stand outs.

There have been several evaluations which have been kindly laudatory of the project's accomplishments. However, nowhere in the accounting of achievements is there a way to see through to the project's administrative under-structure, the smooth functioning of which was essential to allow the technical staff to focus on the purpose of the project. This project simply could not have succeeded as it did without the administrative excellence of Ms. Diana Bejarano. No detail was small enough to escape her able attention. On the side of USAID's oversight of the project, Mr. Richard Clark was, consistently attentive, unfailing in his support, dependable in his judgement, and a good friend.

Throughout Central America the project worked with organizations, businesses and individuals who are far too numerous to mention individually but who were the real engine of the export growth that has happened over the project years. Their success is testimony to their own skills at absorbing the assistance we could give and successfully competing in the world market place. As a team, we take our hats off to these people. They are the fuel and spark behind the fire of NTAE development occurring around Central America. This project simply squirted a little gasoline here and there. What these organizations and businesses have accomplished in these few years has been truly remarkable. We wish them continued success.

PREFACE

This document is a summary of the EXITOS or PROEXAG II project as seen from the inside of the team. No apology is offered for the fact that it will, at times, seem like a cheer leading exercise. This project worked. It succeeded better than even the first team members expected back at the outset of the original PROEXAG project in 1986. There are lessons here to be learned.

There will be little attempt to join the philosophical battle over whether or not private enterprise is an all consuming, environment destroying, demon or the primary hope for rescuing underdeveloped countries. Private enterprise was at the heart of this project, and at least in this context, was a good development engine. The descriptions contained herein relate to what can happen when people have the appropriate resources in a workable environment. This project's experience supports the following observations:

> "...if developed countries lifted all trade barriers to third world goods, the latter would gain in exports twice what they now receive in aid."[1]

> "...Latin America economies need to double their economic growth rates and boost exports sharply if they are to reduce poverty."[2]

It is a measurable fact that this effort has contributed to the general economic well being and political stability of the countries of Central America. Only future evaluations can address whether or not the economic growth this project helped generate was sustainable, whether or not the impact of these activities reduced environmental pressures, and whether or not the poorest segments of these societies will have benefited in the long term. As a team, we believe that even though there continue to be very serious problems to be managed, the evidence from this project provides a positive response to all three questions now and will likely continue to do so into the future.

ABBREVIATIONS

Agrequima-GIFAP	A pesticide information program funded by chemical companies designed to promote safe agricultural chemical usage
APENN	Nicaraguan Association of Producers and Exporters of NTAE
APHIS	Animal and Plant Health Inspection Service, of USDA
ASAP	A USAID agricultural development project based in the Philippines
BABCO	Belize Agribusiness Company
BCGA	Belize Citrus Growers Association
BEIPU	Belize Export Industry Promotion Unit of the Chamber of Commerce
CA	Central America
CADEXCO	The Costa Rican Chamber of Commerce of Exporters
CAP	Central American Programs, USAID Regional Central American Mission
CATIE	Tropical Agriculture Research and Teaching Center in Costa Rica
CD-ROM	Compact Disk - Read Only Memory
CIF	Cost, Insurance and Freight - a term for describing the price of product including the insurance and freight to get the product to the buyer
CINDE	Costa Rican Coalition for Development Initiatives
CLUSA	Cooperative League of the United States, USAID project in El Salvador
CNAA	The Costa Rican National Chamber of Agroindustry and Livestock Producers
CPD	Commodity Price Data Base
EARTH	School for Agricultural Research on the Humid Tropics, in Costa Rica
EOP	End Of Project
EPA	Environmental Protection Agency
EXITOS	Export Industry Technology Support project
FHIA	The Honduran Federation for Agricultural Research
FOB	Free On Board - a term for describing the price of product as including everything up to being loaded on transportation
FPX	The Honduran Federation of Associations of Agricultural and Agroindustrial Products and Exporters
FUSADES	The Salvadoran Foundation for Economic and Social Development, the agricultural diversification division known as DIVAGRO
GEXPRONT	The Non-Traditional Agricultural Exporters Guild of Guatemala
GREXPAN	The Guild of Exporters of Non-Traditional Crops of Panama
Ha	Hectare
IMA	Panamanian Institute of Agricultural Marketing
LAC TECH	A USAID project based in Washington, providing technical support to missions of Latin America and the Caribbean
LADD	Latin American Agribusiness Development Corporation
LDC	Less Developed Country
LOP	Life Of Project
MNS	Market News Service
NTAE	Non Traditional Agricultural Exports
PACA	Perishable Agricultural Commodities Act of the United States

PAD	A test for pyruvic acid in onions which is a reasonable measure of pungency
PAECA	Action plan for Central America as decided by its presidents in June 1990
PIPP/A	A pesticide information project located in GEXPRONT
PMA	Produce Marketing Association
POE	Point Of Entry
PROEXAG	Promotion of Export Agriculture project which preceded EXITOS
UFFVA	United Fresh Fruit and Vegetable Association
US	United States of America
USAID	United States Agency for International Development
USDA	United States Department of Agriculture
USDOC	United States Department of Commerce

SECTION I
EXECUTIVE SUMMARY

The EXITOS project ran from September, 1991 to January 1995 continuing the work of the PROEXAG project (October 1986 - August 1991). The primary objective of the project was to increase the value and volume of exports of fresh fruits, vegetables and flowers from Central America. This was done by providing assistance wherever, whenever and for whatever was necessary to make the produce "deal" a success. Major results of the project included the following:

- New country - crop combinations were established in every country of Central America, thereby diversifying the economy and providing increased job opportunities, better economic stability, more foreign exchange, and tangentially, greater political stability.

- The project encouraged the production of products counter-seasonally to production in the United States, thereby complementing the supply of fresh produce and making more items available year around to the U.S. consumer.

- A conservative calculation estimated that each one dollar of U.S. taxpayer money spent on the PROEXAG and EXITOS had a return of $8.82 to the economies of Central America and $13.08 to the economy of the United States.

- Over 10,000 farms received some sort of assistance from the PROEXAG and EXITOS projects. Over 8,000 of those farms were of one hectare or less in size.

- Farms and businesses in Central America receiving project assistance employed over 80,000 individuals. A preponderance of those jobs were in rural areas. A majority of the jobs went to women.

- Over 5,300 permanent jobs were created in the United States by the economic activity directly attributable to the PROEXAG/EXITOS projects. No U.S. jobs were lost to Central America due to project activity.

- Numerous non-traditional agricultural export growers and companies continue to expand and extend the project impacts after project closeout.

- The project left information system support products installed and functioning throughout the Region, including copies of its library on CD-ROM, the library management system MicroDIS, and the Commodity Price Database.

SECTION II
INTRODUCTION

The EXITOS project was a follow-on to the highly successful PROEXAG project (PROmotion of EXport AGriculture). The PROEXAG non-traditional agricultural support project ran from October 1986 until September 1991. This project, officially called EXITOS (EXport Industry Technology Support project) began in October 1991 and ended January 31, 1995. Chemonics International implemented both projects. The project clientele, office, team and purpose remained largely the same between the two projects. The transition between the two projects was sufficiently smooth that most of the project clientele were not aware that one project had ended and another begun. As a result, the EXITOS project continued to be commonly known throughout the region as PROEXAG or PROEXAG II. The projects were so tightly linked that it is impossible to report on EXITOS without recurrent reference to the PROEXAG project. Much of the evaluation work and many of the statistics which will be reported relate to the outcome of both projects.

The region in which the project worked included all of the countries of Central America and Panama. For purposes of brevity, throughout this report, references to the Region or Central America are intended to include all of the countries: Belize, Guatemala, El Salvador, Honduras, Nicaragua, Costa Rica, and Panama.

Why would USAID choose to implement a project such as this one to promote the non-traditional agricultural export (NTAE) industry? The following are some of the reasons:

- Non-traditional agricultural exports, in the form of fresh fruits, vegetables and flowers, offer high returns per land unit
- They can be grown profitably and effectively on small plots
- They have high labor requirements
- They provide a good source of foreign exchange
- They provide a wider distribution of benefits in the economy than plantation agriculture
- They can be more environmentally sound than plantation agriculture

The reasons a project like this one is needed to assist the process is because NTAEs typically also have the following characteristics:

- They create an increased demand for credit
- They demand a higher level of knowledge on the part of the grower
- They have a high need for imported inputs
- They require more intensive resource management and time on the part of the grower
- They demand sophisticated harvesting and postharvest handling
- They often require sophisticated packaging
- They place greater demands on transport systems
- They require sophisticated marketing

- They can expose workers to chemicals with which they are not familiar
- They require sophisticated pest and disease management
- They require careful water management
- They generally place high demands on every level of infrastructure
- They tend to be very unforgiving of errors at any point in the process and often require precise timing

The basic thesis behind this project continues to be as relevant to USAID policy today as when it was first implemented. On February 28, 1995, Mark Schneider, Assistant Administrator for Latin America and the Caribbean spoke at the 1995 Hemispheric Policy Forum at the Institute of the Americas in La Jolla, California. He stated that trade and aid must go hand in hand, at least for the next decade, as the Americas move toward the goal of fully integrated economies as well as open and free markets. He also commented:

> "Telling a country with weak institutions to raise trade standards is often ineffective, ... Complementing the message with an offer of technical assistance or training greatly enhances the chance for success."[3]

The experience of this project supports Schneider's assessment.

The project was expected to serve a number of roles. They will be discussed more fully in the body of the report, but they can be summarized in one word: Catalyst. Like a worried parent watching over a child, the project was to encourage, instruct, assist, and generally do everything necessary to make sure success resulted, but all the while leaving the businesses and organizations to actually accomplish the task. The poor distribution of wealth in Central America is a festering impediment to development that must be resolved. There are two approaches to improving the balance. One approach is to take away from the wealthy and give to the poor. The other is to create more wealth in such a way that the poor get a larger share than in the past. The work of this project used the latter method.

SECTION III
PROJECT DESIGN AND IMPLEMENTATION

A. Project Design

The original concept of the EXITOS project was a four year project which would provide long term and short term technical assistance, training, and some research inputs. It was to support the development of a non-traditional agricultural export (NTAE) industry in Central America. The term "non-traditional" can not be succinctly defined, in part because it varies from country to country. Nevertheless, in practical terms, it has meant horticultural crops, such as fruits, vegetables, flowers, and spices, mostly as fresh product. The term "export" has predominantly meant sending product to the United States, but has included significant volumes to Europe as well. Increasingly important has been the export of product among the countries of Central America itself.

Each country of Central America has had at least one organization which provides some significant support function to the growers, exporters, and businessmen in the NTAE industry. Part of the project design was to actively support such organizations. In some instances this meant providing assistance to help design their programs. In other instances, this meant molding project activities to support and amplify their programs. A list of the NTAE support organizations with which the project had significant interaction is given in Appendix A. In each country of the region, the project coordinated with the designated USAID staff members in order to follow their lead and complement the programs they were promoting.

The team, for purposes of explaining the project to others, reduced the description of the design to two sentences: 1) Increase the value and volume of fresh horticultural crops from Central America. 2) Provide assistance to support organizations in the region which are working toward that same end.

The project directly supported the objectives set out by the presidents of Central America and Panama in the June 1990 Action Plan for Central America (PAECA). The Action Plan called for increasing non-traditional agricultural exports and specifically, to develop the infrastructure (transport, communications, customs, port development, electricity, etc.) needed to achieve that objective.

B. Project Implementation

B.1. Level of Effort

The EXITOS project contemplated a slightly smaller team than had existed under PROEXAG. It also had a plan for fielding the team members which was staggered through the life of the project. The following table shows the anticipated length of participation of specialty areas.

LONG TERM TECHNICAL ASSISTANCE TEAM

Position	Person Months
Information Management	48
Production	48
Regulatory/Quality Control	24
Marketing	48
Institutional Development	24
Total	**192**

In reality, the project, following as it did the PROEXAG effort, was faced with handling a formidable momentum of activity from the day it started. The emerging peace in El Salvador, the new democracy in Nicaragua, the post-Noriega Panama, and the ongoing activities inherited from PROEXAG combined to create higher demands on EXITOS project resources than had existed under PROEXAG. In consultation with USAID, it was decided to amend the project to implement a faster "burn" rate on the available funding than originally planned. In practice, this meant that the project had its long term expatriate staff functioning concurrently, to the extent possible, instead of in a phased fashion. This reduced the level of effort for the longer positions and increased amounts for for those which had been planned to be shorter. Amendment 9 reduced the total obligation to 188 months, but 192 were actually delivered.

In addition, there were 52 man months of short term consulting programmed as well as time for local support staff and project supervision. The entire level of effort anticipated was 533 man months. The following table shows the breakdown of the level of effort planned compared to that delivered. Total level of effort was 102 per cent of the contract obligation.

LEVEL OF EFFORT CONTRACTED AND DELIVERED

Category	Contract	Delivered	% Delivered
Long term advisors	188.1	192	102
Short term advisors	51.7	99	191
Project Supervision	12.4	14	113
Local Professionals	235.6	241	102
Total	**533.1**	**546**	**102**

The mix of level of effort delivered varied somewhat from that programmed, in the areas of project supervision and short term advisors. The original contract amount of 29 man months for supervision was reduced and thus allowed for an increase in the time of technical consultants. Some of the technical consultants used were found in the region, which lowered the cost and increased the effective number of man months which could be delivered. The net effect of these deviations from the contract plan was a higher delivery of technical support to the region.

B.2. Nature of Technical Assistance

The project team provided direct technical assistance through field visits, by way of seminars, by training technicians in the counterpart organizations, and through the dissemination of information. Project assistance varied by crop and theme, but could include any of a large number of possibilities, of which, the following list is representative:

- crop identification
- seed acquisition
- production techniques
- disease identification
- pest identification
- IPM techniques
- land preparation systems
- irrigation technologies
- soil analysis interpretation
- pruning, grafting systems
- fertilization systems
- harvesting systems
- postharvest technologies
- transportation
- market identification
- contract evaluation
- PACA assistance
- marketer identification
- training on U.S. government regulations for packaging
- training on U.S. government regulations for residues
- training on U.S. government regulations for pesticides
- training on U.S. government regulations on enterability
- training on European community regulations
- price histories
- packaging

In addition to assistance provided directly to growers, businessmen and counterpart organizations, the project also worked directly on solving major problems independent of specific businesses or organizations. For example, the project worked on expanding enterabilities, did research on diseases and pests, coordinated with the U.S. industry, and so forth.

Long term advisors spent something on the order of one half of their time traveling in the region and directly working in the field. Crops and themes were divided among long term advisors, who each took the major lead in the areas of their assignment for defining directions and the limits of project activity.

B.3. Outputs Monitoring

Measures of project output were refined in course of time by USAID. In accordance with the final determinations, some of the contractually expected results compared to actual accomplishments were as shown in the following table.

USAID TRACKING INDICATORS OF PROJECT IMPACT

Planned End of Project Status Indicator	Measured Project Performance
1. Landed value of export sales (CIF POE, Cost Insurance and Freight, Point of Entry) of EXITOS client NTAE business increases by 15 per cent per year over LOP (Life of Project).	The estimates of value increased from $250,000 in 1987 to $36,000,000 for 1994. The per cent change from year to year was as follows: 1987 to 88 **+788 per cent** 1988 to 89 +210 per cent 1989 to 90 +155 per cent 1990 to 91 +0.5 per cent 1991 to 92 -16 per cent 1992 to 93 +127 per cent 1993 to 94 +7.6 per cent The average annual change for the EXITOS portion was +40 per cent. Dramatic changes in the yearly values were due to such factors as the Gulf War, changes in project crop strategies and the lag time between crop introduction and the actual achievement of exports. In 1991, the project stopped counting the climbing value of exports of cut flowers from Guatemala, even though significant work was done early in the project to help that industry with its exports. The industry was sufficiently self sustaining that the project assistance was no longer warranted. Percentage changes in total exports from the region were neither as great as these values nor did they vary so radically from year to year.

USAID TRACKING INDICATORS OF PROJECT IMPACT

Planned End of Project Status Indicator	Measured Project Performance
2. Export federation staff can aggregate NTAE export sales for CA increase by US $60 million by EOP.	From 1991 to 1994, the increase in export sales value was 84.6 million dollars, for project deals alone. Figures were unavailable for CA export sales for 1994 as of this writing, but from 1991 to 1993, the increase was $72 million. Adding to that figure only the 1994 value of project deals gives $108 million .
3. POE NTAE export volumes increase by 40 per cent by EOP, excluding bananas, pineapples and citrus products.	Counting only the selected crops of cantaloupe, honeydews, raspberries, asparagus and onions, the per cent increase from the 92-93 export cycle to the 93-94 export cycle was 54 per cent, representing about 70,000 tons.
4. Twenty new crop associations established and still in operation by EOP.	Twenty two associations were assisted to form and begin operations.
5. Two hundred and fifty NTAE businesses receive assistance.	Only major assistance was counted, leading to output that would not likely have occurred without project assistance. There were 421 businesses so assisted.
6. Two hundred new export market opportunities conveyed to NTAE businesses.	Again, only major interventions were counted, 181 such opportunities were registered.
7. Sixty deals made over the LOP.	There were 102 significant deals made.
8. Fifty adoptions of key production, marketing technologies by NTAE businesses.	The project registered 70 such adoptions.
9. Twenty new NTAE crops or crop/country combinations exported for more than one season over LOP.	There were 25 such combinations over the LOP.
10. Train 7500 NTAE businessmen from 500 companies.	There 988 companies represented among the 8343 people trained, of which 1480 were female.

B.4. Budget

The following budget shows the original budget compared to the final amended budget. The final project billing was not submitted by the date of this report and therefore it was not possible to include an actual expenditure column. The final expenditures will be slightly less than the final budget amounts. In addition to these budget amounts, there were also several buy-in contracts to the project. They were reported separately in the final reports required by each buy-in and are not included here.

EXITOS Budget

Line Item	Original Budget	Final Amended Budget
Salaries	$1,597,450	$1,511,671
Fringe	$357,122	$459,632
Overhead	$1,080,766	$1,158,658
Travel & Transp.	$384,395	$404,521
Allowances	$854,816	$736,298
Other Direct Costs	$778,292	$739,013
Equip. Veh. & Freight	$187,120	$188,441
Training	$166,055	$127,251
Subcontractors	$1,180,201	$1,117,967
Subtotal	$6,586,019	$6,443,451
General & Admin.	$224,164	$196,727
Fixed Fee	$409,813	**$409,813**
Grand Total	**$7,219,996**	**$7,049,991**

SECTION IV
ACCOMPLISHMENTS

A. Introduction

Economists Taylor and Hardesty called PROEXAG/EXITOS the de facto support institution for Central American NTAE development. Between 1986 and 1992, FAO figures showed that the value of NTAE from Central America more than doubled and substantially exceeded the combined NTAE from Bolivia, Ecuador, Peru, and all the Caribbean.[4]

This project was designed to be a catalyst. That means the project never exported anything of its own. It never put its own seeds in the ground. It never sold its own product. It worked to help others do those things. It is therefore, somewhat presumptions to claim specific improvements in the NTAE industry of Central America as project accomplishments. We know the project was key in many ways, but it was other people who were putting their money at risk, spending their time, dedicating their land, and - happily - banking the results. On the other hand, it would be mistaken to say that all project benefits are so deeply intermixed with the work of others as to make them indistinguishable. In what follows, the effort is made to indicate the differences the project made.

B. Mistakes Avoided

An extremely important component of the project accomplishments can never be reported or quantified because they are things which did not happen. Some who have been familiar with the project have observed that perhaps the most important accomplishments of the projects are the things it caused not to happen even more so than the things it caused to happen. There were many growers who were encouraged not to do certain things, not to apply that chemical, not to cultivate in that way, not to irrigate on that schedule, not to accept that contract, not to use that receiver, not to plant at that time, and so forth. Grower organizations were encouraged not to work with certain crops, not to undertake that research, not to organize in certain ways, and so forth. The establishment of any industry takes time and there are many lessons to be learned along the way. Some of those lessons are learned at the expense of the failure of individual businesses. These very significant learning costs slow the overall maturation speed of the industry. One measure of the impact of the project, and an indication of how many of those tough failure lessons it helped the industry avoid, is the rapidity with which NTAEs have been developing in Central America. It took the melon industry about 15 to 20 years to mature in Central America to where the technology of how to grow and export melons was sufficiently widely known and used, so that the average new grower could be reasonably confident the technology he was employing would be successful. It has taken about five years for brambleberry and sweet onion production to reach a reasonably stable technology - with project assistance.

C. Economic Impact

In trying to reach a measure of the economic impact of the project, a system was employed which consciously underestimated total benefits. The project records, from the beginning of PROEXAG, through EXITOS, were reviewed. Instances were looked for in which product was exported and where some aspect of the deal involved such key project assistance that it could reasonably be said that the deal would not have happened without project assistance. Key assistance could have been something as basic as the project introduced the plant material. For example, everyone in Central America who is growing colored calla lilies can trace their plant material to this project. Therefore, the value of exported colored calla lilies can reasonably be attributed to the project. Certain large receivers did not do business in Central America until encouraged and helped by this project. The value of those deals can reasonably be attributed as a project success. The F.O.B.[5] value of these exports were aggregated. It is much more difficult to obtain an F.O.B. price point for product which was exported to Europe. Therefore, the exports to Europe, which have been significant, were largely ignored for this analysis. The sale of product in the local market was ignored. The sale of product among the countries of Central America was ignored. Even with these restrictions, the value of project activities proved to be high.

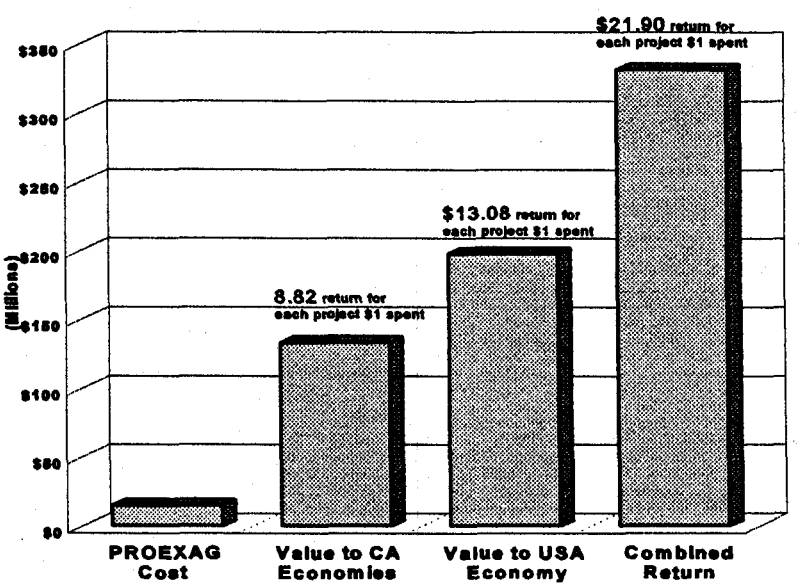


Figure 1 An Economic Estimate of Project Impact

An estimation was used of the cost of production and transport for each of the products in order to divide the value of the sale which returned to Central America compared to the value which accumulated in the United States. Economic multipliers were applied to reflect the extended value of the economic activity in the economy.[6] Figure 1 shows the results of the analysis. Placing the value of the export activity in ratio to the cost of the project yielded the outcome that for each one dollar spent on the PROEXAG and EXITOS projects, there was a return of $8.82 to the economies of Central America and $13.08

to the economy of the United States, for a total return of almost $22.00. As mentioned, these estimates, though large, are conservative. Every year from now on, even after the project termination, these benefits will continue to rise to the extent that these deals continue to function. Over the past ten years, the United States has had a negative agricultural trade balance with the countries of Latin America.[7] To the extent that this trade balance is made up of counter seasonal products such as those reported here, this analysis suggests that even a negative trade balance can have a very beneficial impact on the U.S. economy as long as major components of the machinery, seeds, other inputs, and transports related to producing and exporting those products come from the United States.

D. Impact Areas

Project accomplishments will be discussed using two general approaches. First, will be a discussion of major themes, followed by a presentation of results in specific crops and activities. The crops and activities will be limited to those undertaken as major objectives. The team typically dedicated about 60 per cent of its time to these activities with the other 40 per cent being dedicated to targets of opportunity, many of which were very significant. The total variety of crops where project assistance was given is far too long and the assistance too diverse to report here. The selection here reported are commodities which received major, new emphasis under EXITOS as opposed to the many which were carried over from PROEXAG. All the products are reported more extensively in the project's semi-annual reports.

In general, the attraction of NTAE is that it offers intensified use of land, has high labor demand, can be undertaken on relatively small plots of land, provides a good source of foreign exchange, and distributes economic benefits in the population better than plantation agriculture. In her analysis of agriculture for developing nations, Dr. Francesca Bray laid out similar criteria for any sustainable system. She said:

> "A sustainable agricultural system must therefore be able to create employment as well as to produce food. It should be flexible and diversified, able to yield not only to subsistence but also marketable surpluses..." That it should be characterized also by: "...systems of polyculture that use land intensively and offer a basis for economic diversification."[8]

Her criteria are a good description of the project's orientation. NTAE is certainly not a panacea for all the problems of the developing world, but a theme of this report will be that, properly implemented, NTAE promotion has a very beneficial impact on many of the basic problems that are commonly recognized as fundamental barriers to development in the third world.

D.1. Women

This project was not specifically designed to target rural women as beneficiaries. Nevertheless, the impacts were significant and the implications far reaching for this group.

NTAE is attractive, in part, because it is labor intensive. That demand for labor has several beneficial characteristics. First, a preponderance of the labor created is in rural areas. Second, the labor tends to be for longer portions of the year than in the case of plantation agriculture. NTAE tends to require greater training and skill levels than plantation agriculture. This encourages growers to retain a trained cadre of workers in whom they have confidence. This results in better working conditions and wages as growers try to keep from losing their valued workers. Finally, and very importantly, a high proportion of these jobs go to women.

Dr. Amalia Alberti conducted a study of the project's impact on women.[9] She reported a number of highly meaningful results related to women. Regarding the availability of work, she reported:

> "...women occupy more than half of the jobs associated with the processing, or postharvest handling of the NTAE products selected in Guatemala, Honduras, and Costa Rica... First, NTAE creates a level of manual processing encompassed in the post harvest handling, or value-added, aspect that is not associated with traditional agricultural exports. Second, the conditions associated with the NTAE post harvest processing phase are such that they invite to the work place women who, because of the social constraints, would not ordinarily work -- or be permitted to work -- in jobs related to agriculture that are normally available in their areas. In other words. Nontraditional agricultural exports (NTAE) not only increases the number and 'quality' of working conditions of jobs available, but because of the latter, also expands the potential labor pool from which it draws workers. Furthermore, because of the personal qualities, such as careful handling and constant and close attention needed to perform the postharvest tasks well, women are preferred to men for the majority of the new positions created."

Regarding the income earned by women, Dr. Alberti reported:

> "...in two of the three countries (Guatemala and Honduras) women are more likely than men to find permanent employment for the crops considered. In the third country, Costa Rica, the percentages of men and women with permanent employment for the products selected is remarkably high (66% for women, and 77% for men). Permanent employment in the high profile NTAE sector is probably one of the best assurances of a good and steady income a person working in agriculture in these countries can have."

Regarding the impact on quality of life, she reported:

> "In addition to assuring better hours and recognized payment of overtime than is ordinarily available to hired labor, employment in NTAE appears to be the preferred employment alternative available, with approximately two-thirds of the women identifying their only other options as domestic services or staying home. NTAE multinational enterprises generally provide satisfactory physical working conditions,

> including basic sanitary facilities, to their workers at central facilities for packing and greenhouse cultivation ... women with responsibilities for others earn a larger share of the total NTAE income generated by women thereby enhancing their ability to improve the quality of life of themselves and those around them."

It may well be that if no other benefits accrued from the project assistance than these, that the project would have been justifiable. That is because these benefits provided to poor women have so many far reaching implications in other critical areas of development. In a review of studies, world wide, on the relationship between poverty, population growth and environmental degradation, it was reported that one of the key factors related to breaking the poverty - population growth - environmental degradation cycle was the power of women over the decision as to how many children to have. The two most important factors in empowering poor women in deciding how many children they have are education and employment. Of the two employment is the most important.

> "There is also good reason to think that lack of income-generating employment reduces women's power more directly than does lack of education."

> "In contrast, policies aimed at increasing women's productivity at home and improving their earnings in the market-place would directly empower them, especially within the family."

> "...a literacy and employment drive for women is essential to smooth the transition to having fewer children."[10]

In the article cited above, Dasgupta links the empowerment of poor women in third world countries, most importantly through the provision of income generating labor, as the most critical factor in reducing the number of children with the double barreled correlation of being linked to reducing poverty, with all that implies, as well as reducing the stress on the local environment.

The immediate benefits of stable employment and improving working conditions associated with NTAE creates beneficial circumstances for poor women with numerous, long term, ""trickle up"" benefits for the society as a whole (reduced birth rates, improved nutrition, improved income) which include the very objectives set by USAID Director Brian Attwood for the Agency: "

> "...increase food supplies, slow population growth, and preserved global natural resources. Sustainable development that creates chains of enterprise, respects the environment and enlarges the range of freedom and opportunity over generations..."" [11]

The impact of this project is most visible in the immediate and dramatic economic impact it has had. But, those numbers, even though impressive, do not show the distribution of the benefits in the strata of society. A $100 increase in income to 1000 poor women is more important, for the end purposes of development, than a $100,000 increase to a successful exporter. The fact that a substantial number of rural, poor, women received meaningful benefit is more important than just knowing the global economic benefit the project generated. The long term structural changes which

are implied by the benefits to women from these NTAE advances are not as visible nor as measurable as the overall project impact, but they may well be the most important project legacy. These empowering benefits for rural, poor, women help resolve some of the problems that lie at the very core of the perpetuating causes of under development.

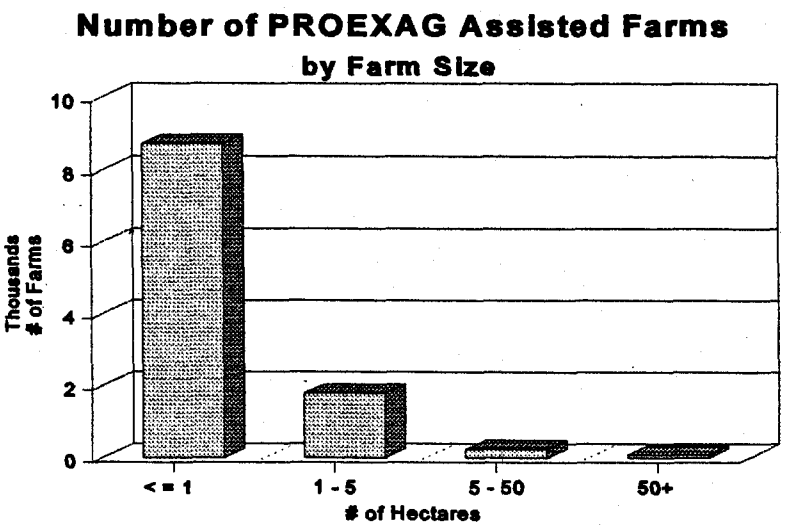
D.2. Small Farmers

The original thinking behind the PROEXAG-EXITOS projects included the concept of creating "channel captains." Though that term defies careful definition, it generally refers to promoting innovators who can show the way for others to follow. The projects did do that. Individuals were sought who could afford to take the considerable risks associated with NTAE and in agreement with the old saw, many of these pioneers did indeed catch arrows, but most found the enterprises to be sufficiently rewarding as to warrant continuing. Once these innovators cut the path, it was easier for others to follow.

Channel Captains, were, of a necessity, people with resources. While working with these individuals was crucial to establishing the basis of an industry, they did not constitute the industry in and of themselves. The project also worked to disseminate results and lessons to others, who might have fewer resources or whose management skills might not be up to the requirements of being an industry innovator.

The project did have an impact on the lowest end of the size and economic spectrum of growers even though the project design did not compel that emphasis. The figure shows that a preponderance of the farms receiving some sort of project assistance were one hectare or less in size. These smallest farms accounted for over 80 per cent of the more than 10,800 farms affected by the project.

While statistics are not available to show the source of most of the export product, by farm size, the team judged that the bulk of the exports occurred from the farms in the one to five hectare size. Similarly it is that size group where most of the technical assistance resources were expended. It is also important to note that small farms are not necessarily poor farms. Most of the one hectare or less size farms were poor. Those in the one to five hectare size were not generally poor.



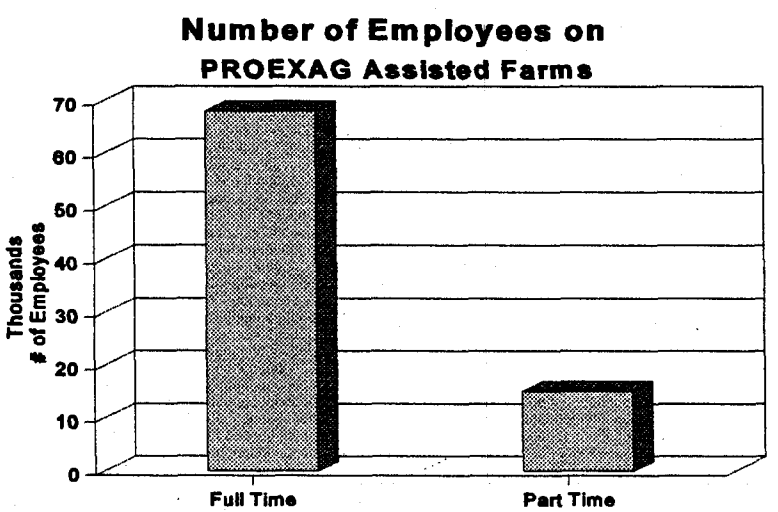


Figure 2 Count of Farms, By Size -- Employees on Project Assisted Farms

The project team was small and did not have the human resources to concentrate on the large number of small farms. It is one thing to concentrate on making the industry function, which this project did. It would be quite a different project to focus on making sure the smallest farms could successfully participate in NTAE. Such a project would need to exist for a longer time period, have a much larger staff and many times the resources of this project to make sure the smallest farms could fully benefit from the development of the industry. It would have to pay special attention to the use of agricultural chemicals since that is a complex issue and many growers in this category are illiterate. It would have to make special and long range efforts to insure the institutionalization of entrepreneurial agility so that the increased risk associated with this type of agriculture would not jeopardize the economic well being of individuals and communities.

Nevertheless, project impact included support of NTAE products that have had positive economic impact on the poor farmers.

> "For the small farmers in the Departments of Sacatepequez and Chimaltenango, non-traditional export crops have been the key to improving their standard for living and increasing their income...farmers who were formerly day laborers have become independent producers."[12]

There are serious and important questions as to whether or not bringing these smallest of farms into the NTAE industry is being done in such a way as to mitigate the greater economic risks[13] (proportional to their resource base) they face, and to properly educate and to protect them with regard to chemical use.[14] The indications, at least in Guatemala, is that the benefits are worth the risks and worthy of the attention of development organizations. Reporting on a CDIE study, the LAC TECH Bulletin reported that in Guatemala, USAID's NTAE development work, of which this project was a major component, was justifiable solely on the income benefits being achieved by small farms.[15]

D.3. Employment

NTAE is almost always intensive agriculture. Some crops demand as much as 140 person days per hectare to produce.[16] Unemployment and underemployment in rural Central America has been a long standing and wide scale problem. The project team noted that in many areas where significant planting of NTAE were taking place, the local labor supply was quickly being absorbed. In some instances complaints were heard in local towns that it was very difficult to get maids because the low income women were working in agriculture - and earning more than they could in domestic service.

The USAID funded ASAP project in the Philippines studied the typical value per hectare of some traditional crops compared to NTAEs. Corn was found to yield about 4,600 pesos per hectare. Coconut yielded about 6,500 pesos per hectare. In contrast, the more intensive onion NTAE plantings yielded about 95,400 pesos per hectare. Garlic gave about 178,300 pesos per hectare. Of course, not all differences are so dramatic. In Guatemala, it has been calculated that growing snow peas typically returns ten times greater value than cultivating corn.[17] For this project, we calculated the representative returns for the crops promoted to be between $8,000 and $10,000 per manzana, compared to $600 for coffee (national average for Guatemala). The figures show that farms which successfully grow NTAE's are working with margins that allow for significant labor input. Figure 2 shows that in Central America, the EXITOS assisted farms employed about 83,000 people. Very importantly, most of those were full time, accounting for over 68,000, or 75 per cent of the total. In the farm size category where the project spent most of its effort, the one to five hectare group, the ratio of full time to part time was less, but still much better than for traditional, plantation agriculture. In that size category of farms, about 2.5 employees per hectare are hired full time and about 5.3 part time workers per hectare are maintained.

In Guatemala alone, it was estimated that employment, as measured by the number of full-time equivalents, increased from 17,000 in 1986 to 66,000 by 1993 among the business sectors for fruits, vegetables and flowers - ornamental plants.[18] These jobs were largely outside Guatemala City,

decreasing the migration pressure to the capital and increasing the vitality of rural economies. Hard statistics are difficult to come by, but the team's sense was that increases in other countries were not so dramatic nation wide, but were equally significant in the geographic regions where these commodities were promoted.

The employment benefits extended to the United States as well. Economists Taylor and Hardesty calculated that the U.S. jobs created from those export activities for which PROEXAG-EXITOS project intervention was deemed as necessary to success, totaled over 5,300. These are full time equivalent positions. They did not find any indication of direct loss of U.S. jobs due to project promoted activities, such as might occur if U.S. companies located off shore. They did not see any indirect displacement of jobs. The project promoted exports are counter seasonal to the U.S. and therefore do not significantly compete with U.S. growers. Taylor and Hardesty judged that the PROEXAG-EXITOS projects were important players in virtually all of the NTAEs from Central America during the life of project. They estimated that all NTAEs from Central America between 1986 and 1993 generated about 19,000 jobs in the United States.

D.4. Pesticides

The EXITOS project was specifically prohibited, by its designers, from making recommendations regarding pesticides. While that was not very practical for a group of highly trained agricultural experts trying to promote NTAE, it was adhered to. The team limited the information it provided to the U.S. regulations on chemicals, for each crop. This is a topic on which few people have a neutral opinion. It is a serious issue that deserves continued attention by donor agencies. Fortunately, there is much which is being done to improve practices and circumstances. Unfortunately, that fact is much more difficult to effectively publicize than the abuses.[19]

Even with that prohibition, the project did actively do what it could to complement efforts to train growers in the proper use of agro-chemicals. From the project outset, office space was provided to the PIPP/A (pesticide information) program of GEXPRONT. This was the safe use of chemicals program of the project's Guatemalan counterpart organization. By having this office inside the project office, it was possible to provide growers with a "one stop shop" for agricultural information, including information on chemicals. Additionally, the project provided office space and services to the Agrequima-GIFAP program.

The Agrequima-GIFAP project is an effort funded by the association of chemical manufacturers. The intent has been to alert those in agriculture to the proper and safe use of chemicals. They also worked to limit the problems of small retailer practices which were unsafe (cutting chemicals, mislabeling, creating chemical "cocktails" of their own design). By the end of 1993, they had trained 1,300 medical personnel in the proper diagnosis and handling of chemical poisonings. They had distributed many thousands of sets of protective clothing. They had distributed thousands of posters which showed safety measures in pictures so that the illiterate could understand. They had trained over 140,000 farmers in correct application and protection techniques. Finally, they had trained over 1,000 retailers on proper chemical handling and labeling.

The earlier PROEXAG project had developed pesticide information bulletins to teach users what could legally (from the standpoint of U.S. law) be used on specific crops. The combination of this legacy from the earlier project, the PIPP/A and the Agrequima/GIFAP projects, all in the same office space, made the project office the single most important pesticide information center in Central America.

The project actively taught growers to understand the principles of horticulture. This involves an intensive management system that sees the land, plant and water resources as a system which must be husbanded and cultivated for its long term health. It included the intelligent and limited use of agro-chemicals so that ecological balances can be maintained and the resources preserved. If for no other motivation, it was stressed to growers that over application of chemicals was a direct subtraction from their profit line.

D.5. Raspberries and Blackberries

Raspberries and blackberries were being cultivated in Central America in the 80's, but not in a commercially successful way. No blackberries were being exported and raspberries were suffering for a number of cultivation problems. The EXITOS team decided to focus on these crops from its outset.

By 1992, there were only 10 Ha of commercial production of raspberries in all of Central America. By the end of the project there were about 115 Ha of commercial production in the Region. Project assistance included resolution of a rosetting problem, managing the inducement of a dormancy without the benefit of freezing temperatures, and of course post harvest help with this, one of the most delicate of fruits. The project introduced varieties, worked on basic production issues such as correct soil fertility, identifying workable environmental combinations including elevation and rain fall, managing irrigation, correct pruning technics, trestle arrangements for maximum production, plant spacing, and the like. One of the project provided technologies was the introduction of predator mites as a non-chemical pest control technology.

Blackberries presented far fewer problems for successful production, even though the fruit is actually more delicate than raspberries. Much of the project assistance focused on improving the crop management technologies so as to maximize production of export quality fruit.

Post harvest management, transport and marketing were integral parts of the brambleberry project assistance. Though the blackberries are easier to grow, the project emphasized raspberry production because the market is at least ten time larger for raspberries than blackberries. Nevertheless, the viability of the opportunity was immediately evident to producers when the first project assisted blackberry shipments to Los Angeles to a December-January market were sold, wholesale, for $7.50 per half pint. Now that product is more consistently supplied, good arrivals typically bring from $1.50 to $3.00 per half pint for both blackberries and raspberries.

D.6. Onions

Onions are well known and widely grown in Central America. The United States is an onion exporting nation. Nevertheless, the project recognized an opportunity for sweet onions. Sweet, or mild, onions do not store well. Therefore, the supply which is produced in the United States does not hold through the winter months. Some initial work in the area had been done by Dr. Doyle Smittle of the University of Georgia. The project contracted his time as well as made contact with the major handlers of onions and particularly sweets, in the United States.

Prior to project intervention, no sweet onions were exported from Central America and the product was virtually unknown in the Region. The project introduced varieties and began the process of helping growers commercialize the product. Project assistance included cultivation technologies that maximized the size and mild nature of the onions, since sweet onions, improperly grown, can be very pungent. This assistance included training growers in the proper fertilization and irrigation techniques, planting timing and technologies, seed bed strategies, as well as all aspects of harvesting, post harvest handling, transport and marketing. The project organized annual "onion summits" in the Region in which growers participated at their own expense to both learn about the crop as well as get a sense of activity in the rest of the region and thereby help them make their own plans. The project promoted and actively use the PAD analysis (a measure of pyruvic acid content that correlates well with mildness in onions - low PAD's are associated with mild onions) as both a grower feedback device as well as a marketing tool.

The 91-92 export season saw the first "sweets" exported, amounting to 19 trailer loads from the Region. In the 92-93 season, the total was 51 trailer loads. That total grew to 202 trailer loads for 93-94. This product promises to continue to develop as an excellent opportunity for Central America for export to the United States during the months of December, January and February.

D.7. Asparagus

When PROEXAG began, there was very little asparagus under cultivation, perhaps totaling no more than 30 Ha. From 1987 until 1994, the total area in commercial production is now just over 1,000 Ha. This project promoted product has both come a long way, but still has a great deal further to go.

The world asparagus markets are very large. There continues to be an opportunity for countries of the Region during the winter month. However, even with project assistance, the levels of productivity are still generally well behind the best producers in the United States and Chile. Project assistance has included variety introductions. Extensive trials have been conducted to help identify the best combinations of elevations, water application, fertilization, cultivation and harvest practices. In general, a consistent error among growers of the Region is over harvesting during the early production of the crop.

As with other major crops assisted by the project, a production guide was developed for asparagus. At the moment, asparagus is a viable crop for many growers. However, with the increasing production from South American countries, growers in the Region will have to seriously adopt the cultivation practices explained in the guide to increase their productivity and lower their marginal costs if they are to retain a position of competitive advantage. Growth in the production of this crop has been impressive. The outlook for export asparagus during the winter months continues to be very good for the Region if the industry continues to intensify its management and employ the proven production and harvest technologies.

D.8. Artichokes

Most commercial artichoke production in the United States occurs in a relatively small area of California. The project identified this crop as a market opportunity early in the life of EXITOS. No one in the Region was commercially producing or exporting this crop when project attention began. By the end of the project, commercial production accounted for about 55 Ha., mostly in Guatemala, but also in Panama. In addition, trial planting were established in each of the other countries of the Region.

Project assistance included variety identification and introduction of seed. Cultivation practices were established relatively quickly, thanks to the prior experience of team member Mark Gaskell with his own trials in Panama prior to working on this project.

The project worked on, but did not resolve the major problem with cultivation, that being a form of root rot. Techniques were evolved for helping growers cope with the problem, but the underlying mechanism of the problem was not isolated, despite contracting scientists to specifically study the infirmity.

The outlook for the crop is good. It has a consumption in the United States of about $60,000,000 per year. While that classifies it as a very minor crop, it is still a significant opportunity for the countries of the Region.

D.9. Organic Vegetables

There is only one organically certified vegetable farm in Central America. It is Cauque Farms. The project has provided significant assistance to that operation in a number of ways. It has introduced crops and provide assistance with aspects of production and post harvest management. Work was done to identify cost effective green manure options. The project has also provided assistance with export marketing contacts.

The project contracted with one of the owners, Maria Samayoa, to provide technical assistance to another USAID project in El Salvador with the objective of transferring some of the lessons learned to other growers.

While the team is very excited about the growing potential of organic horticulture in the Region, it cautions that with all the favorable aspects of organic production, particularly as it is being done by Cauque Farms where quality meets or exceeds non-organic operations, it is nevertheless the most difficult type of horticulture. Ms. Samayoa has a master's degree in IPM from Cornell University. The knowledge base and level of management attention required for this type of agriculture makes wide spread adoption very problematic. A project larger and longer than PROEXAG-EXITOS could be easily be fully occupied with just organic agriculture promotion, but not likely with the same level of overall success.

D.10. "Long Shots"

Some of the team time and project resources were committed to crops that were long shots in the sense that either a great deal needed to be learned about their successful production or the market is still developing for that production window would not begin during the life of the project. Those which will be mentioned here include edamame, vernonia and tropical fruits.

Edamame is a vegetable soy bean. It is primarily consumed in Japan where it is common in bars like peanuts is in the United States. During its life span, the project was unable to reach a conclusion to the production trials to see if the combination of day length, growing altitude, irrigation, and other cultivation factors could be managed to produce a marketable product. Since this is a crop which is mostly supplied by Taiwan to Japan, but Taiwan is rapidly decreasing its production due to competing pressures on ever increasingly valuable land, the opportunity is opening for other potential suppliers.

No commercial exports were achieved during the life of the project. Trial product was deemed to have good flavor by local Japanese. The proportion of desired three seed pods continued to be a problem in the trials. Whether or not this product can be brought to commercial viability will rest with others.

The project introduced an oil seed called vernonia to the Region. By the end of the project, very promising trials had been conducted, but commercial product had not been achieved. This is an oil that has very desirable characteristics as a replacement in solvents, paints and the like. It meets the environmental standards set by the State of California for 1999. The press cake that is left after oil extraction is 40 per cent protein (very high) and should be an excellent animal feed.

If vernonia could be developed into a commercially viable crop, it represents a substitute for the cotton growing areas of Central America.

Tropical fruit cultivars were introduced to every country of the Region. While all of the fruits introduced are already grown in the Region, the local varieties are not commercially desirable. The introduced varieties are commercially proven. The plant material introduced will be used mainly for propagation. Commercial production will not begin for a number of years. The commercial impact

of these introductions will probably not be significantly felt sooner than 10 to 20 years, but could one day be very large.

D.11. Institutional Development

A great deal of effort, including most of the content of three buy-ins to the project, concentrated on helping project counterpart organizations with institutional development issues. The central theme to most of these efforts had to do with the long term financial viability of these organizations. That topic is discussed elsewhere in this report, in the section on problems, and will not be repeated here. The project assisted with the design or re-design of the USAID NTAE strategy or counterpart organizations in every country of the Region.

In addition, the project directly assisted in the formation of a number of organizations. Perhaps of greatest importance was the considerable effort on the part of team member William Barbee to help organize growers in Guatemala, Costa Rica and some in El Salvador, toward a self managing system of quality control for various products, but most notably melons and pineapple. This was done in close coordination with the Animal and Plant Health Inspection Service of the USDA. The effect of these efforts has been an improvement in the quality and uniformity of the product exported. It has made growers more aware of the phytosanitary standards which are required and reduced their losses due to detainments, fumigations, and outright destruction of product by regulatory agencies in receiving countries.

D.12. Information Systems

Throughout its life, the project was very active in generating, collecting, and disseminating information. It also did extensive training in all of its counterpart organizations to help them better organize their information management technologies. This included direct training in the use of computers and programs. It included program modifications to USAID's library management system, known as MicroDIS, as well as installing the program and conducting training in library/information management among the project counterparts.

The project developed a database system that allowed for on demand generation of price histories for over 100 products in world markets. The system, known as the CPD (Commodity Price Database) allows for flexible price histories based on the product, market, origin, quality, or any other variable normally used to describe product in the world markets. The program generates price histories by day or week. It adjusts for differences in sale units and currencies. It allows for printed reports, spreadsheet output or basic graphs. It was installed in every country of the Region. It is the only system of its kind the project team is aware of anywhere in the world.

Toward the end of the project, a concerted effort was made to transfer as much of the project's considerable library to CD-ROM. While the total size of the library was not large, compared to many collections, its concentration on products of interest and information specific to Central America make it particularly useful. About 20,000 pages were transferred to sets of 4 CD-ROMs and donated to the project counterparts along with the necessary software and hardware to use the system.

SECTION V
HOW THE PROJECT FUNCTIONED

A. Introduction

On a number of occasions, representatives of other USAID projects visited the project offices in order to learn how the project approached various aspects of project implementation. Not everything the team did was unique or peculiar, but the mix of approaches proved interesting to many investigators. The following descriptions do not form an operating guide, but they do provide an insight into the project philosophy of moving to the heart of a problem and being solution oriented.

The role of the project was fundamentally one of being a catalyst. This involved identifying opportunities, training, removing obstacles, making linkages, propagating information, and whatever else was necessary to achieve the objective of establishing a viable export industry. This approach has been validated in other settings as well. In a study of why some countries have succeeded in the export market place and others have not, the World Bank observed:

> "The most critical ingredient for successful entry into international markets in the eleven success stories (studied) was almost always the presence of a catalyst, defined as an individual or company (domestic or foreign) or a public agency, or a combination of these, that (a) pioneered the process of development in an outward-oriented direction before anybody else in a sector, (b) packaged the needed know-how with domestic endowments and external financing, and © diffused the experience and know-how it learned in that initial development process...the catalyst served as 'creator' and 'transmitter' of the supply response."[20]

It was the project's approach to act as just such a catalyst to bridge the gap between the potential of the host country businesses and the actuality of a functioning export industry.

B. Crop Selection

On more than one occasion, other USAID projects and counterpart organizations, impressed with the project's track record, asked for copies of the project's studies which led to the successful selection of crops the project was promoting. The answer was, "There were no studies."

The project sought those crops for which there appeared to be a reasonable chance of high success. The initial process of crop selection was a long Saturday session in which the project team and three invited consultants sat around and discussed the merits of different options. Once a list of good potential crops was agreed upon, that list was tested against the question: "Which of these high potential crops offers the very best opportunity?" Again, this was an animated process of give and take which reduced the list by more than half. Other iterations, using the same process lead to a list that the project committed to. The idea behind this process was to use the combined expertise of highly qualified and experienced individuals instead of doing field trials or market research or library

research. Since the project was aiming at the best of the best options and was relying such a depth of experience and knowledge, the resulting list proved to be a combination of good choices.

This process did not yield quantitative data which could be used to justify the positions taken, but it did allow the project to begin operations almost instantaneously with a clear set of objectives. As the project progressed and new opportunities were sought, the same process was used to subject alternatives to a project think tank that proved to be a good litmus test for suitable crops and activities.

This approach worked because we used a group of highly qualified experts with many years experience in Central America and non-traditional agriculture, and because the number of potentially good options to choose among was relatively large. The exercise was intended to yield a list of crops with high likelihood of success. It was not intended to yield the only good options nor the selections that were demonstrably the absolutely the very best among many good crop options. Rather, the exercise was supposed to yield a list of excellent options without the benefit of protracted study. The project success demonstrates the process was sound. The table at the end of this section shows the crops selected, by country. These represented about 60 per cent of the team time, the remainder being dedicated to other opportunities as they evolved during the life of the project.

C. Deal Making

The project spent a great deal of time with "walk-ins," people coming to the project offices or attending seminars who wanted to talk about their own ideas and ask for advise. Many of these contacts resulted in significant business deals. However, the backbone of the project's deal making was to go look for individuals and businesses considered to be good candidates for putting a deal together.

The project involvement with selected growers included analyzing and assisting with any and every aspect of the business necessary to result in placing product in an export market at a profit. To the extent that assistance was not available directly from the project team, outside expertise was brought to bear to solve problems and implement solutions. The approach was to start small and intensively manage a project through to success before trying to extensively promote the effort.

On the export market side, the project looked for receivers with experience, with superior track records, and industry proven integrity as reflected by having the highest rating in both the Blue Book and the Red Book. The project kept short lists of four to five receivers for the crops of high importance. Linkages were made between these companies and local exporters in whom the project also had high confidence.

An example may help. When the project began working with Nicaraguan growers to produce sweet onions, it picked a "channel captain" grower who had weathered the Sandanista years, was a superior manager, already had produced onions, and who had sufficient interest and resources to take on this new venture. The team helped him get the seed, advised him on land preparation, irrigation, cultivation, fertilization, and every other aspect of managing the production of the crop. Team

evaluations of the crop as it progressed through the season predicted a high portion of export quality onions. PAD analyses suggested they could be marketed as sweets. The grower had never exported this commodity. He did not know the U.S. side of the industry. The project identified a potential receiver who is a key player in the industry. He had never imported onions, let alone the more perishable sweet onions. He was interested, but cautious. As the harvest period approached, the Central American market for onions was so good that the increased risk of exporting did not seem warranted. The grower was interested in learning the important lessons of exporting this product while he had the project to guide him, but he was also a realist. The local market was awfully good to pass up. The project arranged a meeting between the U.S. buyer and the Nicaraguan grower, in the U.S. The grower traveled at his own expense, accompanied by a team member. Both the grower and the buyer had confidence in the judgement and integrity of the team's marketing specialist. The marketing specialist bridged the U.S. and Central American sides of the business. He advised both parties on the development of a fair contract. He raised their levels of confidence in the potential for the deal. With prior approval from the project, he offered to reduce the risk of the venture when it was clear both parties were still skeptical.

The risks which needed to be managed included the risk for the receiver that he would be paying for the transport of the onions when they arrived. This amounts to roughly half the landed value of the product. This cost had to be paid before he could open the containers to see if he had sellable product. If he did not, he would be out the substantial transport costs. The risk for the Central American grower which had to be mitigated was that the local market was so high that it would be the better part of wisdom to sell locally and not export. The marketing specialist arranged the following side deal. The project would pay the transport costs of the first containers. This removed the risk for the receiver and the grower. If the deal failed, the grower was out his onions and the receiver was only out for the expense of getting rid of the bad product. But, if the deal succeeded with a profit then the grower agreed to re-pay the cost of the transport from his liquidation, but not to the project, to the export federation of which he was a member. That federation, in turn agreed to place that money in a fund which would be used for product development or activities similar to those which generated the funds. The project retained the right to review and advise the federation on its proposed uses of the funds as long as the project remained active.

The deal did succeed. The grower did pay back the cost of the transportation to his federation. The project continually advised the federation to use those funds in such a way as to generate more funds. The grower and the receiver established a good working relationship, which has continued with more exports in that first as well as subsequent years.

Most deals did not require as much intervention as this one. The guiding principles used to determine what would be done could be summarized as: Do as much as necessary to make the deal happen, but not so much that the deal would be dependent on the project in order to be perpetuated.

D. Information

Project designers named the lack of information as a critical blockage to the development of NTAE. In response, the project became an information conduit for Central America. Periodical

literature, market information, regulations, industry developments, technology developments, IPM, post harvest technologies, packaging, transport, and every other aspect of the industry information was actively sought for. The project collected and distributed pounds of such information at least every month to all of the project counterparts, to USAID missions, to industry leaders, and every other pertinent organization in the region which could be identified.

USAID has a library management program called MicroDIS. The project paid for programming updates to that program to make it more useful in the Region. It was installed in all the counterpart organizations. All of the distributed information packets had those items which were considered of importance to include in the counterpart organization's information centers were pre-classified in MicroDIS and a diskette sent with the information packet. In that way, the receiving organizations did not have to all re-do the work of classifying the information, and it was accessible in their search system from the day it arrived.

In addition, the project acted as an information retrieval service for the Region. Great effort was made to respond to all legitimate requests rapidly. This often required very substantial back-stopping assistance from staff and consultants in the United States and Europe.

E. Training Trips

Training trips were organized for businessmen which were remarkable success from the standpoint of exports and business which could trace their germ to the contacts made on these trips. The trips were arranged in the following manner. The project developed a schedule and itinerary with an eye to both teaching participants as much as possible about how the industry functioned and to placing them in contact with serious businessmen with whom they might work out business arrangements. The project then actively recruited businessmen whom they thought could benefit from the trip.

In addition to planning the program, the project also paid for local transportation in the form of vans. Team members traveled with the participants as guides as well as instructors, facilitators, information synthesizers and evaluators. The growers who participated paid their own airfare, hotels and meals. This model proved to be very effective. Only the really serious would participate since most of the cost of the trip was born by them. However, the opportunity of the contacts and assistance provided by the project was attractive since it is not something they could do their own. These results were exactly in line with expectations and the reason they were organized. Serendipidously, it was found that the camaraderie among participants often led to cooperation and collaboration among Central American businessmen, even across countries, that had not been anticipated.

F. U.S. Businessmen

This project was organized to target Central America. However, in its execution, it also became an important resource for businessmen wishing to do business in Central American NTAE. The project provided U.S. businessmen with appropriate local contacts. It helped many U.S.

businessmen think through the advisability of proposed deals. It provided a set of eyes and ears on the ground for U.S. businessmen who could not afford to keep a person in the Region. It provided information about political conditions, production areas, breaking opportunities, language translation and every other aspect of the business. A number of businessmen stated that they could never have gotten into business in Central America without the project's assistance.

One of the ways the project planted interest in U.S. businesses for product from Central America was to identify individuals who were not only important, reputable businessmen in horticulture, but who also possessed superior technical knowledge in aspects of the industry. The project would approach such individuals to provide training in the Region. Different arrangements were made. In some cases, the project paid only for transportation. In other instances, it also paid per diem. In a few cases, it also paid an honorarium. The individual was brought to the region to provide the contracted technical assistance or training, and then encouraged to take time to do his own business. For these periods when the businessman was on his own, the project provided no air fare, per diem or honorarium, but it did actively work to put him in contact with appropriate individuals in the Region. This approach typically resulted in first quality technical assistance at a low cost, while at also giving U.S. businessmen first hand experience and business opportunities in the Region.

G. Counterpart Organizations

Following some confusion, early in the life of PROEXAG, regarding the appropriate relationship between the project and the counterpart organizations, a method of operation was devised which worked well. The project served as a resource to the counterpart organizations, most of which were federations of exporters, businessmen, or export related organizations. They were encouraged to call on the project for assistance with any aspect of their operations and functions. Importantly, the relationship was collegial. The project exercised no control over the counterparts and they exercised no control over the project. The project administered no funds that could be accessed directly by the counterparts and visa versa. On the other hand, the project team was aware that project success was closely linked to counterpart success.

The project served as a source of technical assistance to the counterparts. The determination of what technical assistance was provided and on what schedule was mutually worked out consistent with the demands of both programs. When a short term consultant was brought in to satisfy the needs of a given counterpart, the effort was made to also use that consultant with other counterparts, as appropriate, thus creating an economy of scale. Information services were actively developed in the project and provided to the counterparts in the form of library information, computerized data, and access to breaking news about the industry. Continuous coordination adjusted project assistance to the changing needs of the federations. The fact that the federations learned the project was a valuable resource and adjunct to their programs, and that they exercised no direct control nor veto power over the project resources, created an atmosphere of professional collegiality that was pleasant and invigorating work environment for both parties.

The downside of the relationship between the project and the counterparts was the degree of dependence which developed between project and the counterparts. In many instances, the project team acted as the technical arm of the counterpart. This relationship was not resolved satisfactorily by the close of the project, leaving an unfilled need on the part of the counterpart organizations.

Perhaps the most significant example of the project's effort to support counterpart programs was Agritrade. This regional trade fair is part of GEXPRONT's program. Over the years it has become the single most important NTAE event in Central America. It attracts hundreds of foreign buyers and local growers. The project supported that effort by encouraging and helping counterparts from other countries of the Region to participate, by providing speakers, by assisting with the planning and by helping with the international promotion.

In the case of GEXPRONT, the project even provided office space and basic support services to that organization's pesticide information program, PIPP/A. In a few instances, a project initiated research fund was established with the counterpart. These were funds re-paid by a grower who had successfully exported in a deal where the project had covered some costs to reduce the risk of the learning process. This was done under the agreement that if a profit were made, the grower would pay back amount of the project contribution - but to his federation.

The project sought opportunities to bring together leaders from its counterparts. This proved to be a particularly fertile effort. Following one of the project's Regional Meetings, these leaders independently formed their own association, known as FECAEXCA to promote and continue their coordination and cooperation.

CROP PRIORITIES FOR PROEXAG II

GUATEMALA	EL SALVADOR	HONDURAS	COSTA RICA	NICARAGUA	PANAMA	BELIZE
ASPARAGUS	Asparagus	Asparagus	Asparagus	ASPARAGUS	Asparagus	
Melons	MELONS	Melons	Melons	MELONS	MELONS	
BRAMBLEBERRY		Brambleberry	BRAMBLEBERRY	Brambleberry	Brambleberry	
SPECIALTY VEGETABLES	SPECIALTY VEGETABLES		SPECIALTY VEGETABLES	Onions	Onions	SPECIALTY* VEGETABLES
MANGOES	Mangoes	MANGOES	MANGOES	MANGOES	MANGOES	Mangoes
Edomame	Edomame	Edomame	Edomame			
NON-TRADITION. CUT FLOWERS	Non-traditional Flowers		NON-TRADITIONAL CUT FLOWERS			
TROPICAL FRUIT	Tropical Fruit	TROPICAL FRUIT	TROPICAL FRUIT	TROPICAL FRUIT	TROPICAL FRUIT	TROPICAL FRUIT
			Black Pepper			

* Tomatoes, Peppers and Eggplant

Non-Traditional Cut Flowers: Calla Lilies, Ginger, Trachelium, Dry Flowers, among others
Tropical Fruit: Includes Papaya, Rambutan, Durian, Pitahaya (Hylocereus), Tuna (Opuntia), Persian Limes, and others

SECTION VI
FACTORS CONTRIBUTING TO PROJECT SUCCESS

There can be individual factors which cause a project to fail, but there can not be a single reason for success. A successful project results from the confluence of many factors, properly timed and well managed. As a result, there are many simple formulae for failing but there is no simple formula for succeeding in a project like EXITOS. Nevertheless, it is possible to identify factors which seemed to have been of particular importance. In the following descriptions, specific factors which were of particular importance to the success of this project are mentioned. However, there were important lessons learned that can be generalized to all NTAE designs. An annex contains a short list of these generalized lessons learned which were written by Mr. John Lamb at the close of the PROEXAG project and are still equally valid at the close of the EXITOS project.

A. The Team

There is no substitute for highly qualified, motivated team members who get along with one another. This project was fortunate to have a team which, cumulatively had more than one hundred years of experience in Central America, with most of that related to agriculture. While titles such as "postharvest specialist," "production specialist," and "marketing specialist" were put on team member business cards, the truth was that most of the team members were quite capable of filling any of the technical roles. These titles simply identified the areas in which a given team member was expected to take the lead. There was a great deal of communication among team members, meaning that team members were intimately familiar with the thinking and objectives of the other team members regarding the details work with specific growers and organizations. Central America is a big place and the team was small. Team members rarely traveled together. This extremely high level of competence, overlap of qualifications, and collegial familiarity made it possible for almost any team member to fill in for any other team member on virtually any technical question that might arise during a given trip. When a counterpart organization or grower had the presence of one team member, they had a high percentage of the expertise of the entire team present.

The construction of most USAID projects involves the identification of team members with unique skills. It would usually seem most reasonable to enrich a teams capability by bringing together a group of people with unique skills so that the project could cover a broader spectrum of expertise. It is not that the design of EXITOS was different, but that in practice, each team member brought such a depth of capacity and experience across many of the professional positions that most of the team members could be thought of as the whole team in one body. This allowed the team to be responsive and timely in ways that would not have been possible if team members had been highly specialized.

The professional respect that team members had for one another, and the willingness to back each other's work, even when that meant an overlap in countries, programs and defined areas of responsibility, was sufficiently high that project programs could be advanced even in the absence of the responsible team member. This general environment allowed the project to adopt the

management philosophy once stated by an IBM executive who said he hired the most competent and qualified people in the world, and then under-managed them. Team members traveling around the region had a great deal of latitude to represent the rest of the team and make recommendations and take decisions with good confidence they would be backed by their colleagues. Team members had strong professional opinions which did not always agree but there was sufficiently good understanding of team objectives that most team members could accurately represent other team members in their absence.

Perhaps one of the most important results of bringing together such a highly qualified group of people was that the project did not have to undertake studies or protracted evaluations of crop alternatives and opportunities. Rather it relied on the combined judgement of its team members. With the level of experience and expertise existent in the team, it was possible to make crop and activity decisions without undertaking additional studies. That does not mean that those things the team selected to do were the only good choices, but that the things they did decide to do had a high probability of success. This gave the team a surety of opinion that was sometimes misinterpreted. Someone reportedly once observed that the confidence and definitiveness of team recommendations made them seem arrogant, to which the person to whom he was speaking replied "Yes, but they are always right". While arrogance was certainly not a quality the team wished to convey, the project did have the luxury of fielding perhaps as fine a set of minds and experience as could be assembled to address the broad spectrum of export agriculture issues in this region of the world.

Last of all, every member of the team was a competent, bi-lingual English-Spanish speaker. The value of having a team which can effectively communicate without the need for translators can not be overestimated.

B. Objectives, not Organizations

There is a paradox in the planning and execution of many USAID projects. Goals are set which are independent of specific organizations, such as "increase political and economic stability." But, project implementation can become so closely tied to activities in specific organizations or with specific populations so that the project is effectively insulated from directly affecting the goal.

In sociology, the distinction is made between "institutions" and "organizations." An institution is the complex of organizations and relationships which relate to some identifiable locus of social function. For example, the institution of "the family" does not refer to any specific family but to the complex of all families, their members, relationships, resources and so forth. Organizations, on the other hand, are discrete units with specific people, resources and structure with a specific location and which exist in a specific time. The EXITOS project took as its main client the "institution" (In the sociological sense) of export agriculture. It took special care to support and assist those organizations which were identified as counterparts by the various USAID Missions. It did not, however, focus on those organizations as the ultimate client. It did not limit its activities to whatever limits any of those organizations might have. It did not restrict its clientele to only those who might be the clients of the counterpart organizations. It did not limit its activities to those things which it could do through the counterpart organizations. The project did not limit its objectives to

insuring the perpetuation or organizational health of the counterparts. Rather, these organizations were taken as players, albeit extremely important players for the purposes of the project, in the larger institution of export agriculture.

Having said this, it should be emphasized that the project expended a great deal of its resources on directly assisting and complementing these organizations and their programs. However, the philosophical distinction between identifying the project's ultimate client as being the institution of export agriculture and not the counterpart organizations was important. It meant that the project was able to avoid having its attention captured or diverted by the myriad demands and needs of those organizations if those needs did not contribute to the advancement of the institution of export agriculture.

In a similar way, the project was not limited to a specific target population. There was an ethical propensity among team members to favor smaller operations or those with fewer resources. Nevertheless, by not being specifically tied to serving that or any other specific population, the team could adjust its approach to what would make a specific crop-country combination successful. In some instances, this meant specifically seeking out individuals who were at the other end of the economic spectrum, who were sufficiently wealthy that they could afford to lose money. There are substantial risks to establishing a new crop in an untried setting.

By not being limited to specific populations or specific organizations, the project avoided the distortions which can occur in projects which must force fit activities or which, because of the blinders imposed by restrictions of working only through specific organizations or with limited populations, are wont to lose sight of the big picture of why the project was undertaken.

What the project did do was center its activities around the produce "deal." The concept of "deal" is central to the produce industry. Much like the concept of "institution," it can refer to a broad set of players and activities, such as in "the Honduras melon deal." It can also refer to the vertical set of infrastructural and business linkages that successfully result in a melon from one specific farm in Honduras ending up on a desert plate in Atlanta. At its simplest interpretation, the "deal" simply referred to the business relationship between two parties for a specific sale of product. EXITOS concentrated on making these "deals" work. The aggregation and perpetuation of many such deals is the substance of a successful export agriculture institution with its attendant benefits of increased foreign exchange, increased employment, and increased and better distributed income.

C. Details of Place

No matter how good of basketball player one might be, he will not play basketball very well if he is required to do it on a tennis court. The EXITOS project was given a game to play and happily asked to play it on the right court, or that is, in an environment which was largely conducive to successful play.

Central America itself, is a "right" place for the kinds of activities EXITOS was asked to perform. It has abundant soils of good quality. It generally has good access to water. It has a

spectrum of elevations which lend themselves to agricultural diversity. It is an available labor supply. It has a climate that is conducive to producing high valued horticultural crops counter seasonally to U.S. It has a cultural affinity to the United States, its major market. It is relatively close to the U.S. It has a variety of transportation options. It has economies which know agriculture. It has a sufficiently well developed infrastructure system of roads, electricity, input suppliers and the like, to have allowed agricultural diversification to begin. It has a changing political environment which is tending toward more open markets and greater willingness to encourage private sector initiative.

The world economic downturn of the 1980's, the collapse of major communist economies, with the resulting evaporation of principal funding for armed political mischief in Central America, and the rise of democratic governments in the region, all combined to encourage a return flow of capital to Central America, by Central Americans. This increased flow of capital to the region provided some alleviation to the chronic and crippling lack of credit for agriculture. While this has been a positive development, it must still be said that the continuing lack of credit is perhaps the single most important blockage to increased adoption of agricultural diversification by poor growers.

On the demand side, the developed nations have been steadily altering diets to include more of the high valued horticultural commodities which can be grown in the region. This demand has taken the form of both an increased consumption of fresh produce and a demand to have those products available throughout the year.

D. USAID

There were a number of things USAID did and did not do, which directly and significantly contributed to the success of this project.

D1. Economy of Scale

This project was designed as a regional project. This resulted in a number of significant benefits. The Region of Central America has no more agricultural diversity across the region than typically exists in any one country. By scoping this project on a regional basis, USAID captured a significant economy of scale. It was not necessary to try and replicate the project capabilities through individual programs in every country. The regional nature of the project allowed for an efficient use of technical resources. The team could dedicate time to crops in countries which would not be sufficiently significant to warrant a country specific program. Consultants brought to the region could be used more efficiently than replicating their assignments for multiple countries through the bi-lateral missions. For example, bringing a specialist on tissue culturing techniques, even if that person did not make a presentation or provide direct technical assistance in every country, resulted in benefits to every country through the propagation efforts of the long term team. There was also the obvious economic efficiency of using consultants among countries as needed rather than having to develop independent assignments with all the separate travel, administrative and reporting overhead.

The regional nature of the project allowed the project to encourage some degree of specialization and coordination among countries. Some crops received team emphasis in one country over another, not because the second country might not have an opportunity in that crop but because the team deemed there was a comparative advantage of one country or region over another. The project could therefore encourage activities which it felt offered the greatest opportunity for overall success to a country when compared to the rest of the region.

D.2. Bi-Lateral Benefits

The fact that this was a regional project meant that the administrative oversight and responsibility lay with the regional mission. By and large, the bi-lateral missions of the region did not attempt to exercise administrative control over the project activities. The relationship between the project and USAID officers among the bi-lateral missions was largely technical in content and related to outputs and not burdened nor colored by a mission need to administer the project.

USAID officers in the bi-lateral missions could interact with the team in terms of what they wanted to have happen in their countries without concerning themselves much with the administrative implications. They could concentrate on what they wanted and when they wanted it without having to worry about how to make it happen. Because they were dealing with a project that was underway, with resources in hand, many of the missions found they could use the project as their "firemen" to attack rapidly emerging problems in their countries which they could not possibly respond to in a timely fashion if they first had to satisfy the needs of their own internal administrative overhead.

The bi-lateral missions also came to use the project as a touchstone for placing their own programs in perspective. The project was frequently called upon to make suggestions and evaluate bi-lateral programs in terms of what was working elsewhere in Central America or what adjustments might be advisable to improve the local opportunity for success.

Through these mechanisms USAID effectively used the project to increase the efficiency of bi-lateral programs, to avoid duplication or to create economies of scale, and to quickly respond to immediate issues or opportunities.

D.3. Project Administration

The EXITOS project was directly administered by Mr. Richard Clark. He spent a preponderance of his time at the project office. He was intimately familiar with virtually every detail of the project. He was technically trained and experienced in agriculture. He traveled extensively to see first hand the project in operation and interact with the organizations and individuals receiving assistance. He was technically competent to participate in the substantive team debates about crops and issues related to the project implementation. This design characteristic used by USAID for administering this project, of having the role of project supervision so intimately connected to the project, had a number of beneficial results. First off, the project never surprised USAID. All activities were undertaken with the deliberate consideration of USAID's administrative

representative. Second, the process of implementing the project was greatly facilitated in that the procedures for approvals were efficient and did not generally become artificial impediments to implementation. Finally, the project was technically enriched by the particular expertise he brought to the equation.

D.4. Credit Exclusion

Beginning with PROEXAG and continuing with EXITOS, the only area excluded from these projects for making export agriculture work was credit. Neither project had funds to loan. There is an uncontestable need for better systems of agricultural credit in Central America. But, excluding the ability to provide credit from these projects was an important design strength. Though many project clients and potential clients were disheartened when they learned of this limitation, in the end, that fact proved to be a benefit. By not dealing with credit, EXITOS was able to develop a reputation for technical integrity that could have been much more difficult with a credit component. Project beneficiaries did not have a need to manipulate information or circumstances in an effort to acquire credit. Project team members did not have to qualify assistance because of credit receipt or potential receipt. The relationship between team and beneficiaries was based purely on the value of the technical assistance that could be provided.

By the same token, U.S. businesses who were doing or thinking of doing business in Central America came to have high confidence that the information they received from the project was based on reason and not a project need to make sure any given local business succeed because it was a project credit recipient.

One USAID official observed that he had been told by local project assisted businesses that the greatest value of the project was related to the fact that the project, though intimately involved in all aspects of export agriculture, had no equity position in any aspect of the industry. This gave these observers confidence in the integrity of the information and assistance it provided. Users of the project whether from the region or other countries, could be certain there were no hidden agendas nor back room deals to color the advice and assistance given by the project. This reputation for technical integrity would not likely have been as easily achieved if the project had also been involved in the issuance of credit.

D.5. Time Frame

The combined PROEXAG and EXITOS projects lasted for eight years. That is an inordinately long time for a single continuous effort by a USAID project. In terms of affecting the whole NTAE industry, it is probably a minimum. Some estimate that melon exports from Central America took about twenty years to mature into a stable industry - without the assistance of a catalyst. Project experience has been that is uncommon to introduce a NTAE crop and bring it to a point of reasonable industry stability in less than five years - with the assistance of a catalyst like EXITOS. USAID's continuance with this effort for eight years provided the opportunity to bring a number of crop-country combinations to a point where they can be expected to continue on their own.

D.6. Tropical Fruits

Under normal circumstances, it would be folly to undertake project activities, the benefits of which could not be expected to materialize for many years after project completion. Projects are expected to be able to show results by the time they complete their life. In the case of this project, USAID made a decision that violated that rule of common sense, and as a result, allowed the project to undertake activities which promise to benefit the Region beginning years into the future. Tropical fruits are obviously grown in all of Central America. However, many of them are varieties which are not commercially acceptable. The project undertook a vigorous program of finding commercially acceptable tropical fruit cultivars and introducing propagative samples of them throughout Central America. Some of these plants will not begin to bear fruit until they are ten years old. They all have to be propagated into commercial quantities first, extending the time horizon even farther of when they will be commercially exported. Nevertheless, the willingness of USAID to look beyond the life of the project and allow investment of project resources into this activity was visionary and somewhat unique. The project team believes the future economic legacy of this foresight will be large.

SECTION VII
IMPEDIMENTS TO SUCCESS

A. Introduction

Like any development effort, EXITOS faced challenges. None proved insurmountable. Some simply come with the territory of development work. Some are preventable. Those enumerated here are chosen because by being aware of them, other development efforts might be able to avoid them or mitigate their negative influence. Some are so obvious they are not addressed. For example, the threat or existence of war. It has been said that truth is the first casualty of war. NTAE business follows closely behind. There is nothing quite so timid as money. It runs away at the first sign of turmoil. While war has been a part of life in Central America for a number of years, the dawn of peace has been greeted with energetic NTAE efforts.

The development of NTAE depends on many factors, including the availability of business people with entrepreneurial skills, the natural endowments of the country, it geographical location and the international linkages for transport and communications. Countries of Central America are reasonably similar on these counts, but they have not developed NTAE industries equally. Two areas of significant difference among these countries, and strong reasons for the differences in their NTAE development are: 1) how well governments have met their responsibility of providing legal protections, conducive business and export policies, peace, and physical infrastructure; 2) how much and how effective export development programs and projects have been. In the following paragraphs, more detail is given to specific areas in which project impact was attenuated because of problems in several of these areas.

B. Policy Environment

EXITOS encountered a diversity of preparedness among the governments of Central America and the United States to allow the private sector in their country to engage in open and active interchange in the international market place. Not much attention will be given to this topic because it is such a pervasive issue in developing countries and this project was not specifically charged with changing that environment. But there are some critical issues that seem to surface repeatedly across countries. In general, there have been clear and marked improvements among all the countries of the region in improving the environment to allow export agriculture to develop.

B.1. Exchange Rates

Any time governments distort the value of their money relative to real market influences, they create problems for international business. They can create artificial opportunities which can quickly disappear and leave businesses stranded. They can create artificially high costs which stifle business. Finally, they generate a environment of uncertainty that discourages long term planning and investment. Business is much more workable in those countries which have a sensible system for

allowing their exporters to keep reasonable amount of foreign currency, usually dollars, in order to buy inputs and pay foreign expenses related to the business.

B.2. Price Controls and Subsidies

These are often undertaken with socially laudable concern for protecting particular populations at risk. However, they are often exploited in such a way that creates scarcity, artificially high prices, or otherwise misleads and economy and stifles long term growth and improvement.

B.3. Drawbacks

Some governments are unwilling to allow companies to import inputs, which will be re-exported, without paying import taxes. This can sometimes erase the competitive margin an exporting company needs to stay in business. The fact that a company is out of business, with the lost jobs and multiplicative economic benefits of its operations probably outweigh by many orders of magnitude the value of the tax on inputs that will be re-exported.

B.4. Legal Recourse

Countries where the ability to litigate in a fair and open system is not present will always have serious problems engaging in international business. In the horticultural industry, there are common practices of buyers providing growers with certain financial incentives or assistance, to bring a crop to market. Sometimes this takes the form of direct payments. Frequently it is in the form of inputs, such as boxes, fertilizer, seed, or the like. If the business relationship fails in some way, the injured party needs the protection of the law to allow for an orderly, legal process for redress. The degree to which this protection exists varies greatly in Central America. It is probably best in Belize and Costa Rica and worst in El Salvador.

B.5. "Ventanilla Unica"

The development of export businesses is greatly facilitated in those countries which provide exporters with a one stop window where they can take care of all approvals and payments at one time. Not all countries of the region have adopted this approach.

B.6. "Enterabilities"

On the side of the United States, the system of determining what products can be imported into the U.S. is a significant policy impediment. It was the opinion of the EXITOS team that for the horticultural industry, the issue of "enterabilities" was the most significant trade barrier that exists between the United States and the Central American countries. The United States prohibits the import of all fresh agricultural products which are not on an approved list. Each country has its own list of enterable products. The reason behind the system is to protect the United States from contamination by pests or diseases that are unknown in the U.S. However, the lists of enterable products for the countries of Central America is very short compared to the number of potentially

exportable crops that can be grown. Adding a new product to the list involves both a scientific and bureaucratic process known as a "pest risk assessment." At the outset of the PROEXAG project in 1986, the attempt was made to increase the number of enterable products. The first approvals were published in the Federal Register five years later. The process is excessively long.

The PROEXAG-EXITOS teams used a three tiered system of classification suggested by Ricardo Frohmader. In the third category were those crops for which there was a clear and well known pest or disease risk. For crops in this category, the only option for fresh export to the U.S. would be establishing some APHIS (Animal and Plant Health Inspection Service) approved treatment system. In the second category were those crops for which the risk was debatable and clearly would need to be investigated with some care. The first group was comprised of crops for which the likelihood of a risk is very low. For many crops in this category, a literature review may be the only scientific investigation necessary to establish the lack of risk. The team worked mainly with crops in this low risk category to try and achieve enterable status.

Experience suggested that the Administrative Procedures Act defines the glacial pace and that there is probably no good bureaucratic solution to this problem. It will probably take a political decision. The bureaucratic system is not unworkable in the sense that it is deliberate and provides the appropriate phytosanitary protections. However, it does not necessarily provide the appropriate career protections. There is virtually no career risk to anyone along this process to say "No." On the other hand, the potential risk from saying "Yes" may be very high. We imagine an APHIS official's worst nightmare in which some exotic infestation is named after him because he is the one who allowed the host plant to enter the country. The team noted a palpable improvement in the bureaucratic process when the United States embarked on a political course of open markets and increased trade in this hemisphere. The APHIS process may not actually need much tinkering other than to lubricate it with the political decision to further increase the variety of imported, fresh horticultural crops from Latin American trading partners.

We are quick to note that the support and assistance received from the Central American APHIS office and all its staff was superb. These are people who are dramatically over extended and always on the "firing line." Nevertheless, their professional prowess, attentiveness and willingness to work with us were all excellent. We counted them as allies and valuable resources. This is not generally a people problem, it is a process problem.

As a team, we believe there are a number of high valued "niche" products which fall in the low risk category which could become as important to Central America as snow peas has for Guatemala - if only they were enterable.

C. Processing

A considerable amount of discussion occurred at the outset of the project about including processing as a major area of project technical assistance. For budgetary reasons, that never happened. While the team did what it could in that area, it was clearly under-covered, in terms of

the need. There are aspects of a processing industry which can develop synergistical with fresh exports. It was not possible to exploit the opportunities as well as they deserved. Future NTAE work in Central America should consider a more active component related to processing.

D. USAID

There were a number of things USAID which contributed significantly to the project's success. Some of those were discussed earlier. On the other hand, there were impediments to success which were of USAID origin. This does not represent finger pointing as a cover up for project failings. This project achieved its objectives but encountered certain issues in its relationship with USAID that made that accomplishment more difficult than it should have been.

D.1. Procurement

The USAID procurement system does not work. Or at least, it did not work for the purposes of this project. It took about 11 months for the procurement of a vehicle through USAID. It took about eight month to procure the equipment for creating the CD-ROM library. For most procurement, the project did not have to rely on the USAID system. By way of comparison to the USAID system, a computer was procured toward the end of the project to accelerate the development of the CD-ROM library. The process of developing the specifications, getting three quotes, selecting the winner, ordering the system, shipping the system internationally and getting it installed and running took less than four weeks. If this project had been dependent upon the USAID procurement system to acquire all the goods and services it needed, it could not have succeeded.

D.2. Disappearing Technical Competence

Over the years there was a reduction in the number of USAID officials with which the project interacted who were technically trained in the area of agriculture and trade which they oversaw. The project had good relations with its USAID counterparts who were generally professional and earnestly committed to making a difference. Nevertheless, without the technical qualifications, these individuals have greater difficulty in distinguishing change from success. They tended not to know or necessarily understand, technically, what has worked elsewhere and why and were thus limited in their ability to craft programs that effectively build upon successful experience in other settings. Some compensate for this limited technical capacity by increasing administrative oversight and requiring reports and analysis which might not otherwise be necessary, but which fall in the realm of what they understand and can manage. This problem is not a crisis, but certainly creates an inhibition for the development process.

D.3. Authority verses Responsibility

The USAID structure does not seem to have resolved very well the issue of matching authority and responsibility. It is common to work with USAID staff who have the responsibility to do something, but not the authority to carry it out. This is manifest in the long chains of people who have to sign off on approvals for various activities. It also means that many people who are

responsible for some activity are assured that if everything does not go as expected (and sometimes even if it does) they will face the second guessing a long line of "Monday morning quarterbacks" who each have some aspect of authority over the question. Perhaps there is no solution to this problem, but it represents an inefficiency that is deadly to any person or project that is achievement oriented.

D.4. Accountability verses Accomplishment

Related to the problem of authority and responsibility is that of mismatch between accountability and accomplishment. When a contract is let, it is with the purpose of achieving some accomplishment. But, when the work starts, the relationship with USAID is driven by the question of accountability. There clearly needs to be a balance between the two for any activity. But, from the perspective of a project, USAID's concentration on accountability during implementation so heavily weights the scale that accomplishment usually becomes a distant background issue. Perhaps some quick examples best explain the dilemma. On more than one occasion, a rapidly developing pest or disease issue in another country of Central America could not be attended to (accomplishment) as it should have been because the project's technical expert needed at least ten days to get the country clearance to travel between countries (accountability). The existence of an on time report (accountability) was often of clearly greater importance than its content (accomplishment). Activities related to production, harvest, transport or marketing are highly ordered and time sensitive (accomplishment). Nevertheless, project activity in these areas was sometimes hampered by waiting while bureaucratic issues related to approval were resolved (accountability). Obviously, any functioning organization has to have a viable system of accountability while it also achieves some outcome. In the case of USAID the system so heavily concentrates on the side of accountability as to be a significant impediment to accomplishment.

This problem has serious manifestations in all aspects of USAID operations. It promotes a condition in which that there is almost never any liability for inferior performance as long as the process was rule guided and proper accountability can be demonstrated.

D.5. Time Frame Mismatch

For agricultural projects, which must plan and act around the agronomic realities of crop production, sometimes the USAID time frame of when things start, stop or are reported are badly out of synchronization. Mother Nature's agricultural cycle is quite unmoved by USAID approval dates. On the other hand, the USAID management cycle often appears to be unaware of Mother Nature's time schedule. When they are pitted against one another, Mother Nature holds all the trump cards and if there is opportunity for accommodation, it must occur on the part of USAID.

This problem also has manifestations in the way USAID deals with non-U.S. Government organizations. It is often more stringent in demanding that agreed to deadlines be keep by others, than it is about keeping its own deadlines and agreements. This is a natural consequence of being the partner with the money, but it has lead to an unfortunate reputation of undependableness.

Still another manifestation of the time frame mismatch is the tendency for USAID to learn from the future instead of the past. Activities, programs, and changes to activities and programs are too often based on the assessment of where things are headed (future) in Washington, than on what experience has taught (past) in the local setting. One manifestation of this problem is the retrofitting that occurs in which a project is measured by or adjusted to fit criteria that were not part of its original design, but which are currently in mode.

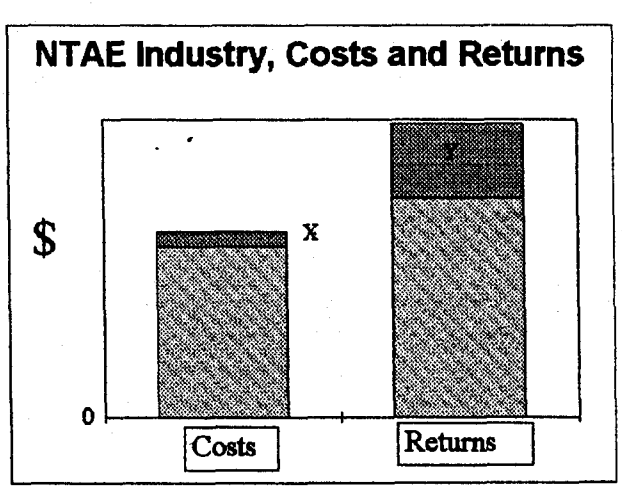
D.6. The Infinity Between Macro and Micro

USAID sets its goals at the macro level, but frequently implements programs at the micro level. (Goal: improve the national economy - Implementation: work with poor farmers.) The problem is that the causal chain between the micro and macro is either not well defined or, in many instances, can not reasonably be tracked. This means that it is often very difficult to determine whether or not the micro level activities have really affected the macro objectives, or if the changes seen at the macro level are really attributable to the micro level activities. The result can be enormous frustration when it comes time to decide whether or not the USAID sponsored activities have been successful or not. Perhaps it might be better to allow the theoreticians to assure us that there are links between the macro and micro, but set our measurable objectives at the same level (micro or macro) where we are working. This was not so much a problem for this project, but it was a deep frustration for many of the project counterpart organizations.

E. Development verses Sustainability

Sustainability has become a watch-word in an environment where donor funding is decreasing. Unfortunately, what the word means is not clearly understood. The issue of "sustainability" presented a continual obstacle to project activities and to the understanding of project objectives.

The bi-lateral missions of Central America have recognized, for years, the need to underwrite the high cost of initiating development, in part by subsidizing indigenous organizations through which the desired development can be encouraged. In every country of Central America, at various points in time during the life of PROEXAG-EXITOS, USAID has funded organizations and charged them with increasing the value and volume of non-traditional agricultural exports. Likewise, in every country, USAID has since grappled with the question of how to eliminate the subsidy while perpetuating the development they paid to encourage. Discussed under the broad heading of "sustainability," this issue is a central problem to continued improvements in NTAE.



Instead of individual businesses, think about and entire export industry. If the condition shown in the figure at the right holds, the industry

should be expected to be viable and healthy. The figure illustrates a condition in which the total combined costs of the industry are less than the combined returns. The problem for development organizations is that some component of the total costs are theirs, such as is illustrated by the cost component marked "x." The activities or services provided by spending the cost "x" may be associated with some component of the total returns, such as is illustrated by the component marked "y" in the returns to the industry. In other words, the total returns to the industry are greater by the amount "y" because the export support organization spent the amount "x" in support of the industry. The problem is that returns accrue to individual businesses and can not be directly captured by the development support organization which bore the cost. The industry is healthier by the amount "y" because the cost "x" was incurred. But, that does not mean the development organization can convince businessmen to pay their share of "x". Each businessman may think, and some successfully, that they can continue to achieve the same returns, including their share of "y" whether the development organization continues to spend "x" or not. In general however, the loss of the return "y" if the investment "x" ceases to be made, significantly weakens the industry.

In the United States, we have publicly supported the Cooperative Extension system and the land grant university system, which have born many costs, similar to the "x" in the figure, which have had very significant positive impacts, such as "y", on the returns to the industry. Legislators have acknowledged that the public good value of these increased returns warranted the continuing expenditure of public funds to sustain these development costs and thereby maintain a healthier industry and therefore, healthier economy.

Two problems result in Central America as a result of this issue. The first is that USAID is not in the business of funding specific development activities in perpetuity. USAID looks for opportunities where their temporary infusion of resources can make a significant difference in economic growth, health, education, or some other good objective. Therefore after they have operated a development project and the decision is made to withdraw funding, the question is whether or not the development costs can continue to be born from other sources. The second problem is the common perspective by USAID that "sustainability" is linked to the perpetuation of the organization they have been supporting.

The pattern in the region is that when USAID funds terminate, no other development oriented, equivalent source has been found. When USAID funds are withdrawn, if the industry which has been benefiting from the support organization's development efforts, then it should be expected that the industry will become somewhat less efficient. A larger number of businesses will fail. Business will generally be less profitable. Less positive impact will be made on the economy by way of jobs, purchase of inputs, purchase of equipment, and so forth. Nevertheless, if the industry persists, a measure of sustainability has been achieved. The perspective of many in USAID has been that when these conditions result they represent failure rather than a normal and predictable outcome of the withdrawal of development funds.

When USAID funds are withdrawn, organizations which survive must either find alternative funding sources, dramatically alter their mix of services, or go out of business. There are several patterns which have emerged in the region. When organizations alter their mix of services to match

their reduced budgets, they effectively cease being development organizations and largely become industry maintenance organizations. When organizations find alternative sources of funding it frequently is from becoming active participants in the industry. They take equity positions in businesses or they develop their own business. When this happens, they effectively become the competitors of the businesses they were meant to support. It goes without saying that this route is fraught with opportunities for conflicts of interest. Even if the sentiments of the leaders still lie with promoting development, all of these organizations, of necessity, have been forced to cease offering most services which constitute basic development. The only organizations we have seen in region which have terminated their USAID projects and funding yet maintained their development role intact have been those organizations which have an endowment which provides funding in perpetuity.

The reason sustainability was an issue which dampened project effectiveness was largely due to the thinking in USAID that once they had "jump-started" the process, the local industry ought to be able and willing to continue the effort, since it clearly represents such a positive benefit to the industry and economy. However, we have not historically seen that pattern in the U.S. Furthermore, the base of potential payers for these benefits is small. Even in the United States, where the produce related business is strong, both the UFFVA and the PMA (both subcontractors to this project), with about 10,000 members each, do not engage in the sort of resource intensive development efforts that were common among the USAID project counterpart organizations in the region. Most of the organizations in the region count their membership base in the tens or few hundred.

In 1992, the project held a Regional conference. Attending were representatives of eight project counterpart organizations that were either whole or partly funded by USAID (BEIPU, BABCO, GEXPRONT, FUSADES, FPX, FHIA, CINDE, GREXPAN). Four others received no USAID funds (CNAA, CADEXCO, PMA, UFFVA -- the first two from Costa Rica, the second two from the United States). A survey was done of these organizations. They were each asked to list the most important activities of their organization. After devising that list they were asked to rate their work for each item according to whether it was related to development of the industry or maintenance of an existing industry. They were asked to distinguish the development or maintenance aspects of their work by dividing ten points between the two. The following table shows the differences. For the USAID funded organizations, the score of 7 under the category "development" means they judged that the activities they listed were mostly focused on industry development. A score of 10 would have meant a total focus on development. The organizations receiving partial funding from USAID demonstrated a slight shift toward industry maintenance. The four organizations receiving no USAID funds reported that their activities were focused almost exclusively on maintaining and leading the industry and did not consider their activities to be very development oriented.

Average Level of Industry Development or Maintenance Focus by Project Counterpart Organizations According to Their Funding Source

Source of Funds	Average Development Score	Average Maintenance Score
USAID Funded	7.02	2.98
Part USAID Funded	6.13	3.87
No USAID Funds	1.10	8.90

It is even more telling to look at the actual activities each group mentioned. The following lists show the most commonly mentioned activities for the organizations receiving USAID funds and the most common for those receiving no USAID assistance.

USAID Funded

1. Training (customized, small numbers attending)
2. Research
3. Technical assistance
4. Information services
5. Business development (inputs, transport, business analysis)
6. Financing
7. Laboratory services
8. Organize the industry, provide center of communication
9. Public education
10. Conventions
11. Industry representation with government
12. Industry crisis management

No USAID Funds

1. General education publications
2. Facilitate communication in the industry
3. Interface with Government
4. Training (video tapes, large groups, generalized)
5. Industry crisis management
6. Conventions

In the list of activities, the USAID funded organizations mentioned that they do all of the things which were listed by the non-USAID funded organizations. On the other hand, most of the things listed by the USAID funded organizations were not listed by the non-USAID funded organizations. Those activities which are most commonly mentioned by the USAID funded tend to

be both intrinsically expensive and expensive on a per capita basis for potential beneficiaries. For instance, carrying out field trials (research) may not end up benefiting anyone other than showing what not to do, but it is very expensive. It requires land, resources, people, and time. On the other hand, interfacing with the government tends to be very inexpensive (can be as simple as one staff member attending meetings) and it benefits all the membership at once.

With the exception of GEXPRONT in Guatemala, with about 1,000 members, each of the non-USAID funded organizations membership base exceeded any of the USAID funded organizations. Of course none of this is surprising. USAID funds NTAE organizations precisely so they can engage in industry development. The problem, of course, is that when USAID funding is completed, what happens to the organization that was receiving those funds. It is not reasonable to expect they will continue with the same, high cost, development activities. It is not reasonable to assume the industry should somehow be willing to pick up the cost. Even in the United States, where the base of beneficiaries who might pay is vastly larger, many of these development activities are provided by the land grant universities and the Cooperative Extension Service because they have been recognized as public goods. What is reasonable is to expect a dramatic transition away from costly industry development activities to the less expensive industry maintenance activities. Even with that transition, most organizations find themselves economically unsustainable, unless they receive subsidization from another source or find a collateral mechanism for generating funds. The most common alternative they select, at least in Central America, is to become an active player in the business. Options have included, importing and selling inputs, becoming an intermediary for export, actually growing and exporting product, and the like. In other words, they become competitors to their own client base. There are many nuances and qualifications, but in general, this model does not work. Those organizations which find a non-competing money generating activity find that attention to the income generation comes to represent a large percentage of their total staff time and resource expenditure. The only organization in Central America which has found non-competing income generating ideas has been BEIPU. They ran a national lottery and served as the Western Union representative for Belize. The latter generated little income. The former was too politically charged and was taken away by the government. Even in the case of CINDE, where an endowment promises continued funding, the nature of the organization and its activities contracted and changed with the end of direct donor funding.

Basic agricultural development activities, directed at the public good, can not be energetically engaged except in a subsidized setting.

If a USAID objective continues to be basic economic development in the countries of the region, and if agriculture continues to be a major component of the economy, then funding agricultural diversification and development efforts should be justifiable and not passé even if it has already been an activity of significant duration of USAID participation. If objectives change from those, and the decision is taken not to be involved in agricultural diversification then USAID should think of measuring sustainability in terms of the functioning of the industry and not the counterpart organizations which they have used as change agents. Even if these organizations persist in name, their substance will be dramatically different. It also means that given the scale of activities in the

region that it may be more reasonable to engage in more agricultural development activities from a regional base than on a country by country basis.[21]

There is certainly nothing wrong with hoping that the effects of donor assistance should be sustainable. But, the measure of sustainability of export development should be taken at the level of the industry, not the unchanged, perpetuation of the development organizations which were used to initiate change.

This project is not unique in this finding. In her study of USAID export and investment promotion, Cressida McKean said:

> "In creating or expanding private intermediaries to deliver services, A.I.D. has had false expectations about creating lasting financial sustainability of these institutions." She concluded: "Do not make financial sustainability of the institution a criterion for assistance. Instead create time-bound, result-focused projects based on a defensible economic rationale."[22]

SECTION VIII
AREAS FOR FUTURE CONSIDERATION

USAID is normally organized to match the geo-political environment it works in. That is, individual countries who merit USAID assistance typically have their own bi-lateral mission. In Central America, in addition to that structure, there is also the Mission for Central American Programs (CAP). That dual structure of both bi-lateral and a regional mission covering the same geography offers some unique opportunities. The relative uniformity of the countries of the region in terms of their climate and agronomic potential mean there are areas in which efficiencies can be achieved by working at the regional level rather than exclusively at the level of individual countries. The following discussion presents some of the areas in which a regional perspective may offer a comparative advantage.

A. More of the Same

There is a tendency for USAID staff to be on the look out for new ways to encourage development in preference for looking over the portfolio of successes to see what might continue to be a fruitful activity. The attitude of "We've already done that" or "We can't be expected to support that activity indefinitely" are common. There is certainly merit to those viewpoints, but there is also the danger of overlooking proven powerful tools. The model of this project has shown it has had notable successes, some of which are stunning, in many areas of USAID concern including trade, women's issues, environmental protection, helping small farmers, improving the lot of the rural poor, equitable economic development, and real benefits to the United States economy.

The model is also a good way to address basic U.S. concerns related to immigration, trade, and development. Aid to help in trade growth reduces the immigration pressure on the United States.

> "At a time when pressure is building to limit aid, pressure is also building to limit immigration. The contradiction is obvious. At a time when pressure is building to limit aid, everyone wishes to expand trade. This contradiction may not be so obvious, but it still exists."[23]

The idea of NTAE trade development is worthy of continued USAID consideration. If USAID chooses to undertake this type of activity in the future, project planners might keep in mind the old adage "If it ain't broke, don't fix it." The model this project used, worked. New project iterations should be careful about how much they tinker with the basic aspects of a proven formula. It is a formula which has been recognized USAID and USAID sponsored evaluations from around the globe.

> "Experience throughout the world has shown that all the countries that have been successful in their drives to expand and diversify exports have done so as a result of first, an unwavering commitment of the government to export-let growth; secondly, a well defined and articulated vision; thirdly, a sound production capability;

and finally, to pull it all together, a viable well organized export promotion agency to implement the reforms...The value of promotion comes from helping firms recognize and act on profitable opportunities more quickly than they could on their own."[24]

B. Market Information

In the United States, the establishment of the Fruit and Vegetable Market News Service (MNS) had a powerful effect on improving the efficiency of the markets. MNS reports the activity in markets in such a way that producers, buyers, transporters, retailers, or anyone with any interest, can know what the prices, volumes, and other market characteristics within a few hours of when the information was gathered.

Central American governments are rapidly moving toward more open borders and increased trade. There is currently no system for reporting market activity among the major perishable markets of Central America. Any system that would be uniform and equitable would need to be organized at the regional level. It is reasonable to believe that the same efficiencies and benefits of increased trade that occurred in the United States would happen in Central America. At the outset, one reporter in the major market of each country, perhaps housed within one of the organizations which USAID already supports, would probably be adequate. Conceivably, these reporters could be trained by USDA's MNS. The information they would generate could be folded into the normal MNS reporting system and not only be available to the produce industry in Central America but also in the United States. Surely there are not only opportunities for increased trade among the countries of Central America, but also for U.S. growers of certain products - but only if they have access to the market information. As a trade and investment activity, this should have a very high ratio of benefits to the cost of the activity.

C. Pesticide Information

There are certain kinds of information businesses intuitively know they need. There are other types they need, but may not always know it. Pesticide information may be information that too often falls in the latter category. Part of the PROEXAG-EXITOS projects was the development of pesticide information bulletins which put pesticide regulation information in a format that helped users understand the relationship of the regulations to the brand name pesticides and crops they dealt with. That activity was turned over to CATIE which continues to produce the bulletins. However, since this is information whose use needs to be promoted, more work may be warranted.

Safe use of pesticides, in accordance with EPA regulations, is the same information for all countries of Central America. The promotion of this information and the education of users may be more efficiently accomplished at the regional level than working country by country. A successful system will have obvious benefits at protecting the U.S. food supply as well as promoting the well being of agricultural laborers in Central America and protecting the environment.

D. Enterabilities

The problem of the limited number of fresh products which are enterable to the United States has already been addressed. Should further work be contemplated in this area, it is likely that efficiencies would be achieved by working at the regional level. Most of the crops which would be considered would be potential opportunities for all or several countries of the region. As such, it would be more efficient to work on satisfying the approval process for more than one country at a time. APHIS typically considers requests on a country by country basis. They may be amenable to considering a multi-country approach for Central America. Even without that, the accumulation and presentation of much of the information needed would be duplicate across countries. Each new crop added to the list defines an entire new export industry opportunity.

E. Transportation

Transportation accounts for roughly one half of the landed value of any fresh horticultural crop exported from Central America. There are efforts underway to made inroads into the transportation cost, such as the laudable endeavor by the Port of Philadelphia to instigate break-bulk shipping for high volume commodities, such as melons. But, for most crops, there are not many options.

There is a chronic lack of equipment, in the form of "reefers" with functional refrigeration units. There is a lack of cold storage facilities at sea ports and airports. Port infrastructure is typically deficient in that equipment is often in bad repair and not available in sufficient numbers. Corrupt port officials are more the rule than the exception. The number of foreign ports which can be reached directly is very limited. Some of those which can be reached are not well equipped or designed to handle perishable commodities.

The major shipping companies are members of a conference in which they collude on prices. Even though they are U.S. carriers, this price fixing is not a violation of U.S. law since it occurs outside the United States. Air transport volumes are limited and the availability of space not entirely reliable, not to mention the high cost. Overland transport was demonstrated as feasible by PROEXAG. But, the cost is not much different than shipping by sea and the risks and hassles of trying to move through Mexico still run high. The ultimate answer to controlling transportation costs is to ship large volume. The current high cost of transport acts as a mighty suppressant on the attempt to increase volume profitably. This "catch-22" situation (can't increase volumes because of high transport costs and can't reduce transport costs without increasing the volumes) is a principle reason greater exports of fresh produce has not been achieved and it will continue to act as a powerful damper.

EPILOGUE

> "Despite forty years of effort by the industrialized nations of the world to improve the lot of the world's poor through massive capital transfers, global missions, expert interventions, and a multitude of aid programs, it has become increasingly evident in recent years that not much has changed."[25]

During the PROEXAG project, a group of professionals from the project counterpart organizations was taken to several major fruit, vegetable and flower markets in both the United States and Europe in order to teach them how these markets function, what they demand of potential exporters, and what they offer in terms of information. The final evening of that trip was spent in Rotterdam, Holland. We had dinner together. Most countries of Central America were represented around the table. At the close of the dinner, I asked for everyone's attention. The profession of everyone present was directly linked to improving the development of their country or the Region. I thanked them for their participation in the tour and we reviewed some of the things we had learned. In closing I asked a question that went something like the following: "Tonight we are sitting in Rotterdam. We have all seen the city. It is beautiful. It is clean. It is well cared for. We do not see an underlying layer of poverty and misery here. Fifty years ago, Holland was devastated by World War II, this city was totally destroyed. Hitler left not a single building standing. The people here had nothing. As a group, they were poorer than any country in Central America. We see what they have done in fifty years. Why has development occurred here so rapidly, so effectively and in so short a period of time, but it has not occurred in like manner in Central America?" For two hours, a very lively discussion ensued. In general, the answers which were given pointed outward. A general tendency was to focus on things that had been done to these countries or deprived from them. While I do not dispute the validity of those factors at inhibiting development, I was struck by the fact that I did not hear a single answer which suggested there might be something wrong internally. The discussion was very unsettling to me and caused me much reflection since.

The question of why development has occurred in some settings and not others keeps many social scientists gainfully employed. Many astute analyses are available. Nevertheless, in my own simplistic way, I see the problem, in its heart of hearts, as fundamentally moral. That was not among the answers given by my companions in Rotterdam. Societies in which members have a strong sense of moral responsibility and obligation toward family, and community, develop faster and with fewer interventions than those which do not have this sense of equity, honesty, and social obligation.

Taking the United States as an example, the power of the social ethic of the pilgrims and immigrants for the first 150 years, perhaps best characterized by the "Protestant ethic," with its emphasis on responsibility and obligation to society and the well being of others, had a powerful effect on facilitating the development of North America, in my opinion. I also believe the movement away from that ethic and world view over the last 50 years is a contributing factor to the rapid process of un-development which is seems to be currently occurring in North America. I take as evidence of this trend toward un-development such gross measures as the increased number of people below the poverty line, the increased levels of crime, increased public dependence, the lowered levels of basic measures of health, infant mortality, education and the like.

When we look at the "Asian Tigers" which have so rapidly developed over the last few years, each one has the cultural character which includes a strong sense of responsibility of society members toward others, of public good over private gratification. As major political barriers have been removed in those countries, the dynamics of development have evolved rapidly.

The importance of morals or values has not been ignored by USAID. In fact the current Assistant Administrator for Latin America and the Caribbean has said: "Democratic governments with shared values are key to making significant progress on economic integration, narcotics trafficking, public health, AIDS, pollution reduction, global warming and biological diversity."[26] That is a pretty impressive and burdensome list to lay at the feet of "democracy and shared values", especially when there are no USAID programs, of which I am aware, which are directly responsible for changing value systems. Nevertheless, I think he is correct.

The moral fabric of a society lies more in the purview of religion than USAID. Nevertheless, if USAID expects to encourage sustainable development, it should not ignore the moral issues. USAID has a toolkit with only one tool, and that tool is money. If there is merit to this argument, it follows that the fundamental problem USAID has is how to use its money to positively affect the morality and values of a society in such a way that sustainable development can occur.

Whether it was a conscious effort on USAID's part or not, and I am sure it was not, the PROEXAG-EXITOS projects have had a positive effect in this regard. I do not mean to say that the projects have directly changed the moral outlook of recipients of project assistance. I do mean that the project has helped cause people to act "as if" they were moral, whether they were or not, because that has been the best way to maximize profit. Growers who need good quality, trained labor must treat their employees well, or they lose them. The cost, through higher wages and benefits, of keeping employees is less than the cost of constantly retraining novices. Businesses must provide incentives in terms of working conditions and salary which keep the employees from leaving for other opportunities and which keep them functioning at a quality level that is demanded for export produce. This kind of agriculture intensifies land use and successful growers learn they must husband their land resource. They must treat the soil as a long term investment rather than a depletable resource - not because they have necessarily become converted to environmentalism, but because that is the best way to protect and enhance their investments. They likewise increase their profit margin if they learn how to minimize the use of chemicals (cost) while producing a quality product (profit).

The implications could be drawn out to other aspects of the export business as well, but the fundamental point is that the kind of application of development resources, as typified by this project, does positively affect what I believe is the most basic and underlying of all reasons why underdevelopment persists. To the extent USAID programs encourage people to act "as if" they were socially responsible, even if the real and immediate motive is profit maximization, then USAID will have promoted sustainable development. It could be wise for project planners to actively think in terms of how a program might cause people, individually, to behave and whether or not those are ethically desirable behaviors. In so doing, planners must not be duped into thinking others will share their own sense of what ought to be. Rather they should think in terms of what behaviors will result

because people thereby feel monetarily profited. Crass as it may seem, since money is the tool, it is the attraction of potential gain which must be used to elicit the desired behaviors of social responsibility that lead to sustainable development in all the areas listed above by Mr. Schneider.

APPENDIX A
Project Counterpart Organizations

The following organizations were involved in project activities and received project assistance to varying degrees.

APENN, Nicaraguan Association of Producers and Exporters of NTAE
BABCO, Belize Agribusiness Company
BCGA, Belize Citrus Growers Association
BEIPU, Belize Export Industry Promotion Unit of the Chamber of Commerce
CADEXCO, The Costa Rican Chamber of Commerce of Exporters
CATIE, Tropical Agriculture Research and Teaching Center in Costa Rica
CINDE, Costa Rican Coalition for Development Initiatives
CLUSA, Cooperative League of the United States, USAID project in El Salvador
CNAA, The Costa Rican National Chamber of Agroindustry and Livestock Producers
EARTH, School for Agricultural Research on the Humid Tropics, in Costa Rica
FHIA, The Honduran Federation for Agricultural Research
FPX, The Honduran Federation of Associations of Agricultural and Agroindustrial Products and Exporters
FUSADES, The Salvadoran Foundation for Economic and Social Development, the agricultural diversification division known as DIVAGRO
GEXPRONT, The Non-Traditional Agricultural Exporters Guild of Guatemala
GREXPAN, The Guild of Exporters of Non-Traditional Crops of Panama
IMA, Panamanian Institute of Agricultural Marketing

APPENDIX B
What Others Said About EXITOS

Though the project name "EXITOS" (meaning "successes" in Spanish) was considered a bit presumptuous by some, it was an apt description of the project impacts. Various individuals evaluated the project, some in the process of considering larger questions than just this project. Published comments regarding this project included the following:

> "But in spite of USAID's traditional ambivalence on promotion of the private sector it had backed two phenomenally successful ventures related to Guatemala. These were so good they stood as models to be embraced, worked with, identified with or shamelessly copied."
>
> "Both of these USAID-backed successes stressed export promotion. One was a banking venture (LADD) to strengthen the country's industry. Chemonics had found the formula for creating a breakthrough in non-traditional agricultural exports in its regional PROEXAG project."[27]

> "AID should review some of its own successes for guidance, including aspects of the ROCAP-PROEXAG project..."[28]

> "Assistance ... through PROEXAG enabled the mission to support an 'agribusiness systems' approach. Such support seems to have paid substantial dividends in export growth, employment and income generation in the highlands."[29]

> "The level of technical expertise and agricultural marketing experience and sophistication available from PROEXAG was extremely high -- perhaps an order of magnitude better than that provided under other projects"[30]

> "The characteristic of the two central actors in the success of Guatemalan NTAEs -- the Guild and PROEXAG -- is not that they undertook specific actions foreseen in a project design that contributed to success, but that they undertook actions that contributed to success because they were able to continually experiment and adapt to the requirements of the situation."[31]

> "The relatively flexible mechanism established under the PROEXAG project appears to be the model for assuring timely and quality expertise."[32]

> "AID needs to explore alternative delivery mechanisms that may be better able to provide highly targeted, demand-driven, enterprise-specific assistance to exporters and investors...One of the more effective approaches to date has been the highly flexible and innovative Support Project for the Exporting of Non-Traditional Agricultural Products in Central America and Panama (PROEXAG)."[33]

"...the export volume generated per dollar invested in PROEXAG and EXITOS is far greater than the $1.67 factor estimated in a USAID field assessment of ten promotional institutions."[34]

"Given the degree to which the project is integrated with existing bilateral country missions, and the scope of its research and support activities, it is within reason to conclude that, with the exception of longstanding melon and pineapple exports associated with multinationals such as Dole and Del Monte, virtually all of the expansion of NTAE since 1986 is at least indirectly attributable to PROEXAG...PROEXAG has become the de facto support institution underlying nontraditional agricultural export activities."[35]

In addition, a number of individuals, businesses and organizations have written letters noting the benefits the project has had for them individually. The text of two are included below:

From Caldarone Food Sales, Inc.

Few in Central America or the U.S. will ever appreciate how fully and professionally you and your colleagues have fulfilled the objectives of the PROEXAG/EXITOS project, but I wanted to take the opportunity to congratulate you, John Lamb, Diana Bejarano, and Ricardo Frohmader for the excellent work you have done over the years. Not even the fine report An Analysis of the Economic Impacts of Non-Traditional Agricultural Export Programs in Central America, which inarguably answers 'yes' to the all-important development question "In spending taxpayer dollars, did you leave Central America a better place than you found it?", is sufficient testament to your accomplishments in the region.

As someone who has worked both for the public sector (with the USAID/USDOC LA/C Business Development Center) and the private industry (with the fresh fruit and vegetable import company Caldarone Food Sales), I can say with conviction that no other development agency in the region performed with your level of efficiency, professionalism, knowledge, and compassion during these past eight years. I do not believe Central American export agriculture would be nearly as large or promising an industry today, and I know that our small company could have never conducted the business that has allowed us to remit over $400,000 to Latin American farmers over the past 12 months, were it not for the PROEXAG/EXITOS project.

Politicians and the media only notice disasters, and consequently I am afraid your project is doomed to obscurity. However, if the respect of your peers and the lasting positive effects of your work are how you measure your success, you and your colleagues have much to be proud of.[36]

From Charles E. Costello, USAID/El Salvador, Mission Director

From my perspective, both as Mission Director in USAID/El Salvador and earlier as Director of Central American Affairs in USAID/Washington, you are an unusual and uniquely effective collection of people who brought to Central America exactly the assistance needed at precisely the appropriate moment to put the isthmus prominently on the agricultural export map.

You are a small group -- only a handful -- but represent a broad range of experiences. Your team has included well-known private sector experts in product handling and marketing, eminent academic thinkers with experience in production and computer applications, training specialists and experienced project managers. Some of you knew each other and some did not. You did, however, share common concerns: the expanded production and export of non-traditional crops from Central America and the reduction of poverty in rural landscapes.

I want to take this opportunity to congratulate you and your team on a job very well done. I personally have witnessed the phenomenal growth in the non-traditional agricultural sector throughout Central America over the past decade, and am certain that PROEXAG has played a major role in that growth. ...

Once again, please accept my most sincere congratulations, PROEXAG has most certainly made a difference in Central America.[37]

APPENDIX C
Successful NTAE Development: Lessons Learned

The following summary is quoted directly from a paper prepared at the end of PROEXAG by Team Leader John Lamb based on the team experiences. It is equally valid at the close of EXITOS.[38]

1. Growth in the NTAE subsector as a whole depends above all on the establishment of viable NTAE-oriented businesses and their subsequent expansion in terms of export volume and crop/product/market diversity.

2. Although the establishment of appropriately conceived NTAE support institutions can help catalyze, accelerate or guide the natural evolution of the NTAE subsector, long-term sustainability in the subsector depends on the viability of NTAE enterprises themselves. Support institutions can induce development, but they cannot be and should not be the primary motor force, because in the end, if the businesses are not profitable, such institutions will wither away when external funding is exhausted.

3. Viability in NTAE enterprises means: (a) the ability to identify, penetrate, maintain and where possible, expand markets for locally produced NTAE crops of products in the face of competition and changing circumstances; (b) the capacity to withstand losses during start-up and bad seasons; and (c) the ability to generate an acceptable return on capital invested, over the medium to long term.

4. Non-traditional agricultural export businesses are high-risk ventures because they: (a) usually involve relatively new crops that require unproven technology and considerable local adaptation; (b) are subject to unpredictable weather and ever increasing pest/disease problems; (c) generally involve highly perishable crops; (d) allow relatively little margin for error and correction; (e) do not lend themselves to continuous learning throughout the year; (f) experience difficulty carrying key personnel through the off-season; (g) tend to aim for short market windows that shift each season and may disappear with time; and (h) are prone to sudden and marked price changes caused by uneven supply in localized end-markets for intermediate distribution points.

5. Successfully NTAE enterprises are almost always built around one or more competitive advantages--usually an economy of place, time, or location--because with the larger and more numerous competitive advantages comes the possibility of either lower risk or higher profitability or both.

6. However, competitive advantage is a relative concept, subject to change as other players make their own business moves. Entrepreneurial capability is crucial not only to initially identifying and exploiting competitive advantage to create a profitable business, but to maintaining that advantage, or adding to it over time.

7. That is why lack of know-how)product, market, technical, and managerial) is the principal cause of failure in NTAE enterprises in LDCs. While such failure can and does occur at all stages of enterprise development, a lack of know-how is most fatal at the conceptualization stage. That is when many critical assumptions and decisions must be made on incomplete knowledge, long before entrepreneurs have had the opportunity to fill in gaps through experiential learning.

8. Secondary causes of failure are many--for example, adverse weather conditions in successive seasons; insufficient or untimely access to (or high cost of) financing, inputs and transport; changes in the local operating environment; and superior competition in the marketplace--but some of these secondary causes are related back to the lack of know-how as well, in that business plans may have failed to foresee or to make adequate provision for such problems or constraints.

9. While subsidies aimed at reducing the cost of or improving access to financing, inputs, or transport can create a temporary competitive advantage, in our experience NTAE enterprises generally do not need or want such subsidies. The only exception is where they find themselves at a significant competitive disadvantage vis-á-vis other producing regions due to distortions such as duties on imported inputs or deficiencies in infrastructure or support services, which are beyond their control to remedy.

10. On the other hand, NTAE enterprises do generally want and seek from their governments certain other minimum business conditions: (a) a realistic exchange rate; (b) competitive wage and labor policies; (c) rapid access to required inputs at world market prices; (d) farm-to-port infrastructure of acceptable cost and quality.

11. NTAE enterprises can be successful despite severely constrained business environments or adverse political or economic environments, but the probability of success at the enterprise level and the likelihood of achieving sustainability at the subsector level is lower in constrained or adverse environments.

12. Given that NTAE business have little time for learning each season and are working with new crops and/or unproven technologies, and given that the business, political and economic environments in the LDCs are less than ideal, establishment of a prosperous and self-sustaining NTAE industry in LDCs is a long-term undertaking. It took 20-30 years in Mexico and 10-15 years in Chile. A 10-year time frame is the minimum for new growing regions such as Central America.

13. The successful experiences in establishing horticultural export industries in the United States, Chile, Mexico, New Zealand, and Thailand all indicate that the main impetus and direction for NTAE development in LDCs should come from private growers/shippers/exporters, but their collective needs are best expressed through producer or exporter associations. And in all cases mentioned relevant government agencies and international donors played a crucial role in supporting the efforts of the private sector.

Conclusions and Implications for Development Interventions

1. To be truly effective, a comprehensive development intervention aimed at helping to establish and expand the NTAE subsector requires that assistance be provided at three levels: macroeconomic policy and infrastructure; producer/exporter associations and individual enterprises. While policy reform alone can help set the stage for business growth, there are too many distortions, inefficiencies in the flow of goods, services or information, and information, and deficiencies in infrastructure to allow policy reform to have the kind of rapid impact that host countries and donors alike both want to see. Conversely, while assistance to individual enterprises can stimulate and guide growth, these same distortions, inefficiencies, and deficiencies in the business environment severely limit possibilities.

2. Within this context, if the overall development objective is to enhance the growth and sustainability of the NTAE subsector, and that depends on achieving viable NTAE businesses, it follows that the foremost objective of development interventions should be to enhance the viability of such businesses.

3. If the principal cause of failure in NTAE businesses is the lack of know-how, it also follows that a major thrust of development interventions should be to facilitate access to required know-how by NTAE entrepreneurs.

   By "know-how," we mean both the acquisition of data, information, intelligence and technology, and its skillful application in the pursuit of business opportunities and the resolution of business problems.

   The range of information required in the NTAE subsector is quite broad. It covers at least four main crop groups (produce, cut flowers and foliage, ornamental plants, and specialty crops such as nuts and spices). It involves at least three major market areas (the United States and Canada, Europe and the Pacific Rim). And it includes all phases of agricultural activity (production, postharvest handling, processing, transport, and marketing).

   At the same time, the application of this information to real business problems or opportunities is very specific. The know-how needed to successfully grow and ship fresh melons by sea from Honduras for consignment sale through an agent in Florida is very different from that which is needed to successfully produce mangos for sale on an FOB (Plant) basis to a U.S. multinational using its own banana ships to carry them to Europe.

   In the NTAE arena, each combination of crop, product form and end-market is a different business--a reality that development projects and institutions have often ignored. And in fact, at the enterprise level, each deal (i.e., a combination of crop, product form, terms of sale, transport route and mode, receiver and end-market) is unique, a reality that inexperienced NTAE businesses too often ignore.

4. Since the range of subjects withing the NTAE subsector is broad, yet the needs of individual enterprises are very specific, development interventions that seek to facilitate access to know-how for a wide spectrum of NTAE enterprises must either: (a) invest hugh amounts of resources in the direct acquisition of know-how (e.g., buying data and information, financing consultants, or supporting research); (b) transfer the capability of accessing know-how to one or more export support entities, crop associations or individual producers; or (c) do some of both.

5. Most development interventions seek a middle ground, taking advantage of the fact that it is impossible to identify and collect certain important bodies of information that cut across growers and crops. Examples include: key technologies in production, postharvest handling, and processing; information sources; consultants; input, equipment and service suppliers; transport infrastructure, services and rates; plant quarantine and pesticide regulations in target countries; prices and volumes by crop and end-market; sales agents; industry structure, conduct and practice. These data sets are crucial to any significant NTAE development project.

6. However, since what is crucial to success in business is not just the acquisition of information but its artful application, export support organizations or projects not only need to find a way to transfer to as many businesses as quickly as possible whatever crop, market, technology or industry intelligence may be needed, but also to transfer the capability to make use of that information. While some of that capability can be transferred by training entrepreneurs in project analysis, by far the most effective method is one-on-one consultation between a seasoned veteran and an individual client.

7. In parallel with efforts aimed at transferring know-how, a comprehensive development intervention aimed at building the NTAE subsector should have a second component that focuses on relieving policy and infrastructural impediments. Specific targets often include; (a) an unrealistically low exchange rate; (b) duties on imported intermediate inputs; (c) taxes on exports; (d) cumbersome export documentation, procedures or facilities; (e) deficient port/airport infrastructure; (f) infrequent or high cost of refrigerated transport service, or lack of service to desirable ports; or (g) inadequate resources or facilities available for applied research.

8. Since export enterprises require a means of expressing their collective needs to governmental agencies, and such agencies also require the support of enterprises to define appropriate policy changes and determine what improvements are needed in infrastructure, a third thrust is also needed--strengthening of export support organizations, especially producer/exporter associations and commodity associations.

While no project intervention can guarantee rapid export development for non-traditional agricultural (or any other group of) products, in our experience a development project that includes all of the above components stands the greatest change of success at integrating export policy, infrastructure and enterprise development.

Desirable Characteristics in NTAE Development Projects

1. Committed to achieving a self-sustaining increase in export volume.
2. Built around the needs of enterprises, but with complementary efforts at improving the macroeconomic environment and strengthening producer/exporter and crop associations.
3. Possessed of the resources and flexibility to hire the best possible staff and consultants.
4. Encourage experimentation, experiential learning and on-going re-design.
5. Given a long time frame--at least 5 years, hopefully 10.

Characteristics to Avoid in NTAE Development Projects

1. Pre-selection of target beneficiaries, particularly small farmers, in an economic endeavor that is relatively capital intensive, has high risk, and requires a long learning period.
2. Pre-selection of target crops, products, receivers or end-markets.
3. Pre-selection of specific sources of financing, inputs or services.
4. Attempts to use NTAE as a means to other ends, such as developing a specific but limited region or fortifying cooperatives or enhancing the status of women in development.
5. Reliance on "silver bullets," i.e., since solutions to a very complex situation, when the reality is that all aspects of the business are important and must fit together if it is to be successful.
6. Designation of a primary institutional conduit for external resources that is not driven mainly by growers.
7. Allocating too many resources too quickly to a single export support organization, which causes it to grow out of proportion to the subsector itself (often strangling rather than nurturing that subsector), and to shift its focus from being responsive to members to complying with donor wishes and rules.
8. Forcing self-sufficiency on a designated export support organization before the industry itself has grown to sufficient size and had sufficient experience to take it over.
9. Encouraging or forcing export support organizations to "get into the business" themselves, usually as a means of achieving self-sufficiency.
10. Channeling technical support and business financing through the same support entity.
11. Attempting to mix traditional and no-traditional products in the same organization.
12. Treating institutional development as an end in itself rather than a means to enhancing sustainability at the enterprise level.

APPENDIX D
Cumulative Project "Deals" and Other Statistics

The project worked with a very large number of growers, across many products, among all of Central America and Panama. As a way of estimating project impact, project records of assistance were reviewed to identify those instances of assistance in which project intervention was in some way crucial to the existence of the deal. For instance, if the project introduced a crop variety into the region, that was not here before, then that would be a crucial intervention. The landed value of the exported crop was used as a measure. For the most part, only product sold in the U.S. market was included (very little export product was included to Europe because landed prices are difficult to obtain, no sales in the local market were included and none of the exports among countries of Central America were included). At the project outset, significant assistance was provided to Guatemalan cut flower growers to move it into the export market, which has very successfully continued. The rapidity with which this sector became a sophisticated exporting system allowed to withdraw almost completely. Even though significant exports continued to occur from project assisted deals, these were not included in the count after 1990. This system of selection gave a highly conservative estimate of the effect of project assistance.

The following pages show the cumulative estimate for all of Central America as well as for each country. Again, the totals do not necessarily reflect the amount of project work done in each country, only the export success by country and sector as described above. The ornamental sector did receive project assistance, but no deals were judged to have been so dependent upon project assistance that they would likely not have developed. Therefore no impact is shown for that sector.

Cumulative PROEXAG Deals

	Vegetables	Fruits	Flowers	TOTAL
Central America				
'87	$100,000	$150,000	$0	$250,000
'88	$319,000	$1,900,000	$0	$2,219,000
'89	$1,956,000	$4,783,800	$150,000	$6,889,800
'90	$4,009,000	$11,685,000	$1,847,427	$17,541,427
'91	$2,049,800	$14,692,242	$887,642	$17,629,684
'92	$3,117,963	$10,908,898	$779,536	$14,806,397
'93	$4,475,973	$28,379,141	$714,500	$33,569,614
'94	$16,389,250	$19,031,000	$714,500	$36,134,750
Subtotals	$32,416,986	$91,530,081	$5,093,605	$129,040,672

Cumulative PROEXAG Deals

	Vegetables	Fruits	Flowers	TOTAL
Guatemala				
'87	$100,000	$150,000	$0	$250,000
'88	$319,000	$100,000	$0	$419,000
'89	$1,956,000	$1,075,000	$150,000	$3,181,000
'90	$4,009,000	$350,000	$1,847,427	$6,206,427
'91	$2,049,800	$2,739,742	$887,642	$5,677,184
'92	$3,025,000	$6,521,260	$779,536	$10,325,796
'93	$3,887,500	$10,819,000	$714,500	$15,421,000
'94	$4,016,250	$10,995,000	$825,000	$15,836,250
Subtotals	$19,362,550	$32,750,002	$5,204,105	$57,316,657

Cumulative PROEXAG Deals

	Vegetables	Fruits	Flowers	TOTAL
El Salvador				
'87	$0	$0	$0	$0
'88	$0	$1,800,000	$0	$1,800,000
'89	$0	$3,223,800	$0	$3,223,800
'90	$0	$2,800,000	$0	$2,800,000
'91	$0	$4,765,000	$0	$4,765,000
'92	$0	$3,482,000	$0	$3,482,000
'93	$0	$3,478,400	$0	$3,478,400
'94	$0	$0	$0	$0
Subtotals	$0	$19,549,200	$0	$19,549,200

Cumulative PROEXAG Deals

	Vegetables	Fruits	Flowers	TOTAL
Honduras				
'87	$0	$0	$0	$0
'88	$0	$0	$0	$0
'89	$0	$80,000	$0	$80,000
'90	$0	$300,000	$0	$300,000
'91	$0	$350,000	$0	$350,000
'92	$0	$300,000	$0	$300,000
'93	$0	$0	$0	$0
'94	$4,200,000	$0	$0	$4,200,000
Subtotals	$4,200,000	$1,030,000	$0	$5,230,000

Cumulative PROEXAG Deals

	Vegetables	Fruits	Flowers	TOTAL
Costa Rica				
'87	$0	$0	$0	$0
'88	$0	$0	$0	$0
'89	$0	$405,000	$0	$405,000
'90	$0	$8,235,000	$0	$8,235,000
'91	$0	$2,937,500	$0	$2,937,500
'92	$0	$0	$0	$0
'93	$0	$0	$0	$0
'94	$0	$0	$0	$0
Subtotals	$0	$11,577,500	$0	$11,577,500

Cumulative PROEXAG Deals

	Vegetables	Fruits	Flowers	TOTAL
Panama				
'87	$0	$0	$0	$0
'88	$0	$0	$0	$0
'89	$0	$0	$0	$0
'90	$0	$0	$0	$0
'91	$0	$0	$0	$0
'92	$92,963	$5,638	$0	$98,601
'93	$21,013	$115,367	$0	$136,380
'94	$613,000	$1,036,000	$0	$1,649,000
Subtotals	$726,976	$1,157,005	$0	$1,883,981

Cumulative PROEXAG Deals

	Vegetables	Fruits	Flowers	TOTAL
Nicaragua				
'87	$0	$0	$0	$0
'88	$0	$0	$0	$0
'89	$0	$0	$0	$0
'90	$0	$0	$0	$0
'91	$0	$3,900,000	$0	$3,900,000
'92	$0	$600,000	$0	$600,000
'93	$567,460	$13,966,374	$0	$14,533,834
'94	$7,560,000	$7,000,000	$0	$14,560,000
Subtotals	$8,127,460	$25,466,374	$0	$33,593,834

Cumulative PROEXAG Deals

	Vegetables	Fruits	Flowers	TOTAL
Belize				
'87	$0	$0	$0	$0
'88	$0	$0	$0	$0
'89	$0	$0	$0	$0
'90	$0	$0	$0	$0
'91	$0	$0	$0	$0
'92	$0	$0	$0	$0
'93	$0	$0	$0	$0
'94	$0	$0	$0	$0
Subtotals	$0	$0	$0	$0

HISTORICAL SUMMARY (1986-1992) OF THE VOLUME OF CENTRAL AMERICAN PRODUCE EXPORTS TO THE U.S., BY COMMODITY, FOR COMMODITIES WHICH RECEIVED EXITOS PROJECT ASSISTANCE
(USDA Summary Report Fresh Fruit & Vegetable Shipments)

COMMODITY	VOLUME OF EXPORTS (100,000 lb)						
	1986	1987	1988	1989	1990	1991	1992
Asparagus				1	1	1	9
Cantaloupes	298	469	737	1407	1928	2244	2504
Cucumbers	38	33	61	145	202	182	264
Eggplant				1		2	1
Misc. Tropical F&V			195	280	381	868	1350
Mixed-Misc. Melons (**)	511	727	543	821	746	1126	1210
Peas (*)	79	108	125	161	196	246	231
Squash	10	27	26	34	69	53	70
Watermelons	173	110	37	71	99	63	291
TOTALS	1109	1474	1724	2921	3622	4785	5930
Percent Change		32.9%	17.0%	69.4%	24.0%	32.1%	23.9%

(**) Includes Honeydews

HISTORICAL SUMMARY (1986-1993) OF THE VALUE OF FRUIT, VEGETABLE AND PLANT EXPORTS FROM THE LAC REGION TO THE UNITED STATES, BY COUNTRY OF ORIGIN (includes non-project assisted commodities)

COUNTRY	VALUE OF EXPORTS (US $ MILLIONS)							
	1986	1987	1988	1989	1990	1991	1992	1993
CENTRAL AMERICA								
Belize (a)	11	11.6	12	12.1	15.8	5.182	18.087	8.969
Costa Rica	33.7	41.8	55	81	98.5	103.32	124.54	142.64
El Salvador	4.9	6.8	5	5.6	6.3	6.333	6.472	6.223
Guatemala	29.5	36.6	37.6	47.9	53.8	55.103	68.878	66.675
Honduras	17.3	28.8	19.9	23.5	23.8	27.123	34.184	39.857
Nicaragua (a)	0	0.1	0	0	0	0.803	1.934	2.736
Panama	8.4	14.2	11.1	6.5	4.9	7.32	8.125	9.848
TOTAL	104.8	139.7	140.6	176.7	203.2	205.18	262.22	276.95
Percent Change		33.3%	0.6%	25.7%	15.0%	1.0%	27.8%	5.6%
CARIBBEAN								
Dominican Republi	45.3	40.9	43.7	46.9	47.8	57.519	56.266	51.967
Haiti	5.4	5.9	5.1	6.4	6.5	7.49	0.261	5.533
Jamaica	12.7	10.4	10.2	9	12.6	15.346	16.879	19.785
Antigua	0.56	0.351	0.142	0.118	0.038	0.249	0	0.002
Dominica	0.692	0.57	0.186	0.05	0.873	0.302	0.186	0.124
Grenada	0.002	0.011	0.011	0.017	0.127	0.207	0.185	0.119
Montserrat	0.104	0.022	0.014	0.006	0.017	0.003	0.016	0.114
St. Kitts-Nevis (a)	0.001	0	0	0	0.022	0.043	0.015	0.017
St. Lucia (a)	0.003	0.051	0.012	0.031	0.003	0.91	0.142	0.293
St. Vincent-Gren.	0.161	0.025	0.043	0.042	0.085	0.166	0.089	0.073
TOTAL	64.9	58.3	59.4	62.6	68.1	82.235	74.039	78.027
TOTAL: CBI	169.8	198	200	239.3	271.3	287.42	336.25	354.98
Percent Change		16.6%	1.0%	19.7%	13.4%	5.94%	16.99%	5.57%
SOUTH AMERICA								
Bolivia (a)	0.7	2.7	2.9	5.4	7.3			
Ecuador	7.5	6.8	10.2	13.7	15.4			
Peru	11	17.1	26.5	25.2	12.5			
TOTAL	19.2	26.6	39.5	44.3	35.2			
TOTAL A.I.D. CT	189	224.6	239.6	283.6	306.5			
Chile	246.3	303.9	345.2	346.5	442.1			
Colombia	139.1	150.8	183.4	194.9	210.2			
Mexico	893.2	840	875.3	1099.8	1437.3			
TOTAL: OTHERS	1278.5	1294.6	1403.8	1641.2	2089.6			
TOTAL: LAC	1467.5	1519.2	1643.4	1924.8	2396.1			
Percent Change	17.2%	3.5%	8.2%	17.1%	24.5%			

Note: Includes categories 05 plus 29 less 057.3 of the SITC (Revision III).
(a) 1991 figure calculated using stratight line method
Source: U.S. Dept. of Commerce, Imports for Consumption, Customs Value

HISTORICAL SUMMARY (1986-1993) OF THE VOLUME OF U.S. IMPORTS OF SELECTED FRESH CUT FLOWERS & ORNAMENTALS, BY COUNTRY OF ORIGIN, BY TYPE

TYPE AND COUNTRY	VOLUME OF U.S. IMPORTS (1000 stems)							
	1986	1987	1988	1989	1990	1991	1992	1993
Roses								
Colombia	160491	199604	213199	221593	293171	350441	398204	490192
Mexico	15196	17538	25861	33565	47969	43005	35580	35420
Ecuador	7221	13126	16791	26238	42283	57956	82828	113097
Netherlands	11581	10489	9730	11606	12852	10280	11879	11240
Guatemala	6872	7722	9285	9365	16543	23533	27885	29935
Costa Rica	5605	6890	5767	4074	5447	7604	7348	6325
Bolivia				1706	2362	3350	3024	2199
Dominican Rep.				2351	3412	3364	3428	3168
Israel	2863	1543	706					
SUBTOTAL	209829	256912	281339	310498	424039	499533	570176	691576
Carnations								
Colombia	779705	866586	891846	766530	1015760	988135	1115375	1213506
Mexico	20632	20109	17817	18493	13820	12285	10457	11262
Guatemala				603	5905	5601	6950	4759
Ecuador	7192	9751	8103	11670	14075	14164	14926	18487
Peru	679	907	5228	6397	3481	2484	203	347
Netherlands	7564	6483	3237	2609	2219	2337	3476	2158
Costa Rica	1919	5897	2093		1517			
SUBTOTAL	817691	909733	928324	806302	1056777	1025006	1151387	1250519
Carnations, Minia.								
Colombia				225276	257388	295248	339888	411324
Costa Rica				9912	4596	3948	948	0
Ecuador				16994	21192	21804	11844	11052
Mexico				10452	6000	6564	9864	10632
Peru				9768	22212	24744	18252	4632
Israel				0	0	17664	0	0
Others				11508	10536	3564	3480	1824
SUBTOTAL	170916	220644	281004	283910	321924	373536	384276	439464
Chrysanthemums, Pom								
Colombia				369114	455124	478614	493182	537306
Costa Rica				39552	51672	59016	60702	65082
Dominican Rep.				5022	3930	2136	672	
Ecuador				9696	10206	8598	7062	6870
Others				3744	3102	4182	852	2262
SUBTOTAL	455802	466590	508278	427128	524034	552546	562470	611520
Chamaedorea								
Guatemala				63925	55075	60075	61400	62300
Mexico				254175	274650	336775	381525	323050
Others				2050	3100	2875	850	575
SUBTOTAL	359219	456925	411250	320150	332825	399725	443775	385925

HISTORICAL SUMMARY (1986-1993) OF THE VOLUME OF U.S. IMPORTS OF SELECTED FRESH CUT FLOWERS & ORNAMENTALS, BY COUNTRY OF ORIGIN, BY TYPE

TYPE AND COUNTRY	VOLUME OF U.S. IMPORTS (1000 stems)							
	1986	1987	1988	1989	1990	1991	1992	1993
Gerbera								
Colombia				19565	23017	26106	28662	28544
Costa Rica				1228	484	409	415	344
Dominican Rep.				1547	1295	1061	821	763
Israel				989	852	841	895	1598
Netherlands				5193	5066	3507	3679	5855
Others				1744	796	426	335	597
SUBTOTAL	18216	30945	32620	30266	31510	32350	34807	37701
Leatherleaf								
Costa Rica				0	3044	31441	17826	8831
Others				445	210	784	1248	1967
SUBTOTAL				445	3254	32225	19074	10798
Lilies								
Colombia				4229	2395	2105	2343	2076
Costa Rica				717	944	1692	2933	3198
Netherlands				27845	33811	27589	28513	27326
Others				1530	970	763	1292	3366
SUBTOTAL	32629	32775	31587	34321	38120	32149	35081	35966
Misc. Greens								
Costa Rica				1839	6326	7860	9231	11670
Israel				766		5400	3353	2446
Italy					561	3928	4016	4107
Jamaica					52	320	542	463
Mexico				10	431	3253	5675	16114
Thailand				325	309	319	401	254
Others				2727	1842	2229	857	1831
SUBTOTAL	8745	12243	6626	5667	9521	23309	24075	36885
Other Ornamentals								
Colombia				56482	88229	108050	118355	156551
Costa Rica				18362	28031	31895	28535	36043
Dominican Republic				3608	12585	23536	11016	15739
Ecuador				4076	8169	10678	11724	17853
Guatemala				3102	4830	3681	5054	4401
Honduras				1678	4405	3133	2748	2982
Jamaica				2966	5684	5319	4026	2492
Mexico				12225	13984	14511	16184	21385
Netherlands				43576	37987	30449	28796	32413
Peru				16012	18453	14014	2576	1860
Others				36957	35045	25404	22460	28055
SUBTOTAL	104040	126007	146616	199044	257402	270670	251474	319774

HISTORICAL SUMMARY (1986-1993) OF THE VALUE OF U.S. IMPORTS OF FRESH CUT FLOWERS, BY COUNTRY OF ORIGIN

COUNTRY	VALUE OF EXPORTS ($1000 dollars)							
	1986	1987	1988	1989	1990	1991	1992	1993
Colombia	136933	142593	175572	186595	199139	202877	231397	251837
Netherlands	60657	62851	63571	67660	63371	49439	51080	53460
Mexico	6122	5098	7275	9978	13438	15390	11898	13930
Costa Rica	4105	4988	5936	8824	9195	10180	10029	11639
Ecuador	1216	2629	3884	7222	9597	12442	15244	19575
Peru	2883	1980	2762	4181	3624	3648	2316	1082
Thailand	1694	2292	2798	4017	4017	4506	4378	4275
Canada	3386	4391	6110	3759	3830	3783	4133	4584
Israel	6830	5268	3907	3196	1966	2056	1610	1828
Guatemala	1242	1787	2111	2591	3316	3699	5335	5033
Australia				945	1559	2078	2898	2614
France				2828	2957	2431	2253	2047
Italy				1591	1245	1029	1332	1128
Dominican Rep.				634	801	1341	1639	1872
Taiwan	11	30	5	2423	826	209	227	109
Jamaica	414	879	686	956	1230	881	597	160
Others	9402	8823	8888	8186	6134	6027	6000	7009
TOTAL	234895	243609	283505	315586	326245	322016	352366	382182

Source: U.S. Department of Commerce, Bureau of Census
(Emanuel McNeil, 202-447-2083

VOLUME OF C.A. PRODUCE EXPORTED TO THE UNITED STATES (84-92)

VOLUME UNITS ARE IN 100,000 lb

Source: USDA (Fresh Fruit and Vegetable Shipments) / Proexag

PRODUCE	84	85	86	87	88	89	90	91	92	TOTAL
Garlic						1	2	4	6	13
Celery	1	16	30	79	30	29	18	25	15	243
Peas	45	50	79	112	126	163	194	246	231	1,246
Eggplant						1		2	1	4
Broccoli						6	4	4	8	22
Squash		7	11	28	24	34	69	53	70	296
Cantaloupe	44	161	298	469	737	1,407	1,928	2,244	2,504	9,792
Onions, Dry								12	11	23
Green Onions			9	20	21	42	25	12	37	166
Peppers, Sweet				1						1
Cauliflower			11	6	3	5				25
Beans		1	1		5	2	1			10
Escarole/Endive						4	4	5	5	18
Asparagus						1	1	1	9	12
Tropicals (*)					196	280	381	868	1,350	3,075

VOLUME OF C.A. PRODUCE EXPORTED TO THE UNITED STATES (84-92)

VOLUME UNITS ARE IN 100,000 lb

Source: USDA (Fresh Fruit and Vegetable Shipments) / Proexag

PRODUCE	84	85	86	87	88	89	90	91	92	TOTAL
[illegible]			2	7	25	41	19	7	13	114
[illegible]		4		3	3					10
[illegible]	12	9	46	13	20	9	23	14	24	170
[illegible]	8	6	7	7						28
[illegible]	277	236	511	728	543	821	746	1,126	1,210	6,198
[illegible]	20	19	16	21	74	2	2	1		155
[illegible]			1	2	1	2			15	21
[illegible]	16	55	39	61	79	149	202	182	264	1,047
[illegible]	585	1,230	871	1,425	1,483	1,494	1,530	1,676	1,975	12,269
[illegible]					237	274	151	95	117	874
[illegible]	11		1				2	1		15
[illegible]	4	29	116	170	50	147	100	63	291	970
[illegible]	1			1	1	3	5	2	2	15
[illegible]	1,024	1,823	2,049	3,153	3,658	4,917	5,407	6,643	8,158	36,832

VOLUME OF GUATEMALAN PRODUCE EXPORTED TO THE UNITED STATES

VOLUME UNITS ARE IN 100,000 lb

Source: USDA (Fresh Fruit and Vegetable Shipments)/Proexag

PRODUCT	91	92	93	94	95	96	97	98	99	TOTAL
[illegible]						1	1	1	9	12
[illegible]		1	1		5	2	1			10
[illegible]						6	3		6	15
[illegible]	6		1							7
[illegible]	6	39	80	105	224	287	365	390	621	2,117
[illegible]			11	6	3	5				25
[illegible]	1	16	30	79	30	29	18	25	15	243
[illegible]	3	6	11	9	5	21	12	8	8	83
[illegible]						4	4	5	5	18
[illegible]						1	2	4	6	13
[illegible]		4		3	3					10
[illegible]		3	1		2	1	1		2	10
[illegible]	180	115	306	146	169	244	234	283	315	1,992
[illegible]		6	2							8
[illegible]	15	13	13	19	31	2	2	1		96
[illegible]								10		10
[illegible]			9	20	21	42	25	12	37	166
[illegible]	45	50	79	108	123	161	194	246	231	1,237
[illegible]		12	37	15	1				1	66
[illegible]					33	76	30	5		144
[illegible]			2	7	12	26	11	7	13	78
[illegible]	1					3				4
[illegible]		16	43	57	20	34	10		14	194
TOTAL	257	281	626	574	682	945	913	997	1,283	6,558

VOLUME OF BELIZEAN PRODUCE EXPORTED TO THE UNITED STATES

VOLUME UNITS ARE IN 100,000 lb

SOURCE: USDA (Fresh Fruit and Vegetable Shipments)/Proexag

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
			1	27	19	4				51
					1					1
				4	5					9
			1	2		1			15	4
	8		5	7						20
				1						1
				1						1
			1	1						2
	8	0	8	43	25	5	0	0	15	89

VOLUME OF SALVADORAN PRODUCE EXPORTED TO THE UNITED STATES

VOLUME UNITS ARE IN 100,000 lb

SOURCE: USDA (Fresh Fruit and Vegetable Shipments)/Proexag

							1			1
	1	6	19	30	55	68	95	95	68	437
				7	1	1				9
	1						4	2	4	11
	43	68	104	253	79	96	114	130	114	1,001
	2	6	3	1	43					55
					2			1		3
					1	1				2
		7	40	33	1	1	2	3	46	133
	47	87	166	324	182	167	216	231	232	1,652

VOLUME OF HONDURAN PRODUCE EXPORTED TO THE UNITED STATES

VOLUME UNITS ARE IN 100,000 lb

SOURCE: USDA (Fresh Fruit and Vegetable Shipments)/Proexag

								2	1	3
	36	88	155	302	366	789	923	1,150	975	4,784
	13	45	25	17	54	123	190	174	256	897
	10	6	43	11	17	7	12	9	9	124
							1	6	10	17
	34	15	51	140	61	60	70	74	77	582
								2		2
						1				1
				4	1	2				7
	474	775	535	684	540	302	330	564	692	4,896
					145	93	54	27	57	376
				1	2	11	41	23	43	121
						2				2
	3	3	18	4	8	37	61	50	110	294
				1	1		5			7
	570	932	827	1,164	1,195	1,427	1,687	2,081	2,230	12,113

VOLUME OF NICARAGUAN PRODUCE EXPORTED TO THE UNITED STATES

VOLUME UNITS ARE IN 100,000 lb

SOURCE: USDA (Fresh Fruit and Vegetable Shipments)/Proexag

									17	17
								3	5	8
									1	1
								54	105	159
									1	1
									1	1
									2	2
	0	0	0	0	0	0	0	57	132	189

VOLUME OF COSTA RICAN PRODUCE EXPORTED TO THE UNITED STATES

VOLUME UNITS ARE IN 100,000 lb

SOURCE: USDA (Fresh Fruit and Vegetable Shipments)/Proexag

								4	2	6
	1	12	23	73	262	538	576	785	2,270
5						2	1		8
	2	2	1						5
					1				1
1		2	2	1	1	6		4	17
				193	280	380	860	1,327	3,040
12	19	7	20	62	208	207	363	392	1,290
				1					1
			1						1
111	150	293	725	942	1,192	1,200	1,112	1,282	7,007
				59	105	64	50	51	329
	7	9	13	18	18	16	15	12	108
		2	7	13	13	8			43
							2	2	4
					67	23	9	46	145
								5	5
129	179	327	792	1,362	2,147	2,444	2,992	3,908	14,280

VOLUME OF PANAMANIAN PRODUCE EXPORTED TO THE UNITED STATES

VOLUME UNITS ARE IN 100,000 lb

SOURCE: USDA (Fresh Fruit and Vegetable Shipments)/Proexag

	1	27	32	9	19	1	7	33	38	167
		2								2
					2			2	12	16
	8	19	43	168	172	213	121	222	207	1,173
	3									3
		293	6	1						300
							3	13	9	25
			1	13	3	4	12	15	14	62
	1	3	15	72	16	8	4	1	73	193
									5	5
	13	344	97	263	212	226	147	286	358	1,946

ENDNOTES

1. Mukerjee, Madhusree, Global Aid Wars, Scientific American, November 1994, p 16.

2. Edwards, Sebastian, World Bank economist as quoted in The Wall Street Journal, September 28, 1994

3. Schneider, Mark Assistant Administrator for Latin America and the Caribbean, remarks made at the 1995 Hemispheric Policy Forum at the Institute of the Americas, February 28, 1995, Lajolla, California.

4. Source: FAO Agrostat, NTAEs are fruits and vegetables, not including bananas.

5. F.O.B. stands for "Free On Board." It is a terms used to describe the price of something. If one person sells truck load of cantaloupe to someone else F.O.B., it means the price the buyer is paying includes all costs associated with the cantaloupe up to the fact that they are placed on the truck and ready to roll. In addition, the buyer will then have to pay the cost of transporting the fruit to his location, pay for the insurance, pay for the unloading, and so forth. When Central American product is sold in the U.S., the F.O.B. price is typically the first time a price is linked to the product. It may additionally, later on, have a wholesale price and then a retail price. The F.O.B. price is the price the product is given in the negotiations between the receiver (who acts as an agent for the Central American owner of the product) and the buyer.

6. Economist Tim Taylor, who was doing an economic evaluation of the project, provided the economic multiplier of 1.8 for the United States. This was the most conservative published estimate he found, which related to the Florida produce industry. Similarly, the most conservative multiplier which could be found for Central America was used. That multiplier was 2.4 and was taken from the master's thesis of economist and Central American Parliamentarian, Rodolfo Dougherty. Mr. Dougherty estimated that if he were to update the study, the current value would probably be about 4.5. Nevertheless, the more conservative figure was used.

7. Lamb, John E. Agribusiness in the Americas: Agenda for Action, prepared for the Summit of the Americas, November, 1994, p. 5.

8. Bray, Francesca, "Agriculture for Developing Nations", Scientific American, July, 1994, pp. 30-37.

9. Alberti, Amalia, Impact of Non-traditional Agricultural Export Growth on the Employment, income, and Quality of Life of Women in Guatemala, Honduras, and Costa Rica, Chemonics International, January 1992.

10. Dasgupta, Partha S. "Population, Poverty and the Local Environment", Scientific American, February 1995, pp 40-45.

11. Atwood, Brian, "Suddenly Chaos", Front Lines as quoted from the Washington Post, July, 3", 1994.

12. Lamberty, Gerald, Comba ting Poverty Through Export Development, GEXPRONT, Guatemala, August 1994, p 2.

13. Lamberty, op.cit. p 2.

14. Thrupp, Lori Ann, Challenc ies in Latin America's Recent Agroexport Boom - Sustainability and Equity of Nontraditional Export Poli cies in Ecuador, World Resources Institute, 1994.

15. LAC TECH Bulletin, USAI D/LAC/RSD/BBEG, Washington, August 1994, p 2.

16. Carter, Michael R. , and ot hers Agro-Exports and Rural Resource Poor in Latin America: Policy Options for Achieving Broadly-Bas sed Growth, University of Wisconsin, 1993.

17. von Braun, Joachim, Nor ntraditional Export Crops in Guatemala: Effects on Production, Income, and Nutrition, International Fo od Policy Research Institute, 1989.

18. Lamberty, op.cit. p 8.

19. The project experienced first hand the effect of high emotion and low reason which does plague this topic. In 1993, Mr. Bill Lambrecht visited Central America and spent several hours in the project offices both interviewing staff as well as searching the library. That contact was followed up with several telephone calls and the project sending a variety of written information to Mr. Lambrecht. He subsequently published a series of inflammatory articles in the St. Louis Post Dispatch. He ignored most of the data he had been given and published mostly anecdotes with shock value then portrayed them as representative of conditions in the region. Many of the figures he did use were grossly in error, in some cases off by many orders of magnitude. Unfortunately sensation sells newspapers. Earlier, Polly Hoppin was contracted by the Regional USAID Mission to look into the state of pesticide use in Guatemala. She produced a report that was methodological unsound and, which also took the road of shocking the reader with highly selected bits of information. That research was contracted by USAID to take a serious look at what the problems were and what were the dimensions might be. However, her treatment was so flawed that the Mission refused to accept the report. She published it independently with the help of the Natural Resources Defense Council. That report has had wide distribution, but is a gross misrepresentation of the general conditions in NTAE in Guatemala. There is nothing wrong, and much right, with the belief that we need to drastically reduce the use of pesticides. There is a great deal wrong with using that belief as moral justification for playing with data to purposefully distort and mislead. The interested reader is encouraged to obtain some of the work reports of the Agrequima/GIFAP effort to gain a perspective of what is being done to improve pesticide use in Guatemala.

20. Rhee, Yung Whee, and Therese Belot, Export Catalysts in Low-Income Countries: A Review of Eleven Success Stories, The World Bank Discussion Papers, # 72, Washington, D.C., p vii

21. The topic of sustainability was discussed at length in the January 1993 regional meeting, hosted by the project. The following notes were written to summarize the conclusions of the meeting:

The topic occupying the majority of the conference was "self-sustainability" of the export support organizations of the region. Conclusions included:

a. That the term "self-sustainable" generally refers to the ability of the organization to financially maintain its operations independent from USAID funding.

b. That the "development" component of the organization's activities is the most expensive, least able to be financially self-sustaining, and therefore needful to reduce unless donor agency funds are made available.

c. That USAID funding is declining, but that not all USAID development objectives in this sector have been met and the export support organizations still represent viable vehicles to achieve development objectives. The mix of objectives and levels of support will vary widely among countries of the region.

d. That PROEXAG-II should continue with its assistance to the export support organizations to achieve financial self-sufficiency, but recognize that the major interaction in this effort is between the country USAID mission and the organization.

e. That there are areas of export industry support which can be more efficiently organized and provided at a regional level, such as information systems (market information, chemical usage, international regulations, etc.), affecting transport, trade shows, certain kinds of technical assistance (pests, specific crops, PACA, processing), etc. PROEXAG-II should continue to work in those areas where regional efficiencies are apparent and not covered by other regional organizations.

f. That it is not reasonable to think that the export support organizations of the region could or should replicate PROEXAG-II type activities in every country of the region. Rather, that the services provided by PROEXAG-II will be needed and valuable into the indefinite future, and that options should be examined as to how to provide those services following the PROEXAG-II project life.

g. The PROEXAG-II project provides a useful, regional mechanism by which the leaders of the export support organizations and their USAID counterparts can be profitably brought together on a periodic basis to discuss their needs, concerns, options, and plans; all this in addition to hearing PROEXAG-II project updates. Furthermore, that these meetings should occur with greater frequency than annually.

22. McKean, Cressida S., Export and Investment Promotion: Findings and Management Implications from a Recent Assessment, Center for Development Information and Evaluation, Policy Directorate, USAID, April 1992, pp 15-16

23. Schneider, Mark, op.cit.

24. Liberi, Dawn M. Remarks made at the Ghana Export Promotion Council Strategy Incorporation Workshop, Labadi Beach Hotel, Accra Ghana, August 8, 1994, p 5.

25. Berger, Brigette, The Culture of Entrepreneurship, as quoted in an after dinner speech at the 1995 Chemonics International Chief of Party Conference.

26. Schneider, Mark, op.cit.

27. Sullivan, John and Jack Vaughan Final Evaluation of the Market and Technology Access Project (MTAP II), Development Associates, Inc. 1994, p. V-1, v-2

28. Lack, Stephen, Kenneth C. Laurent, Conchita Espinoza, Arden Christiansen and Donald Calvert. Agricultural Crop Diversification/Export Promotion Cross-Cutting Evaluation. Experience Inc., March 1986, p. I-7

29. Fox, James W., Kenneth Swanberg and Thomas Mehen, Agribusiness Assessment: Guatemala Case Study USAID, 1994, p. v

30. Ibid p. 23

31. Ibid p. 34

32. Ibid p. 55

33. CDIE, CDIE Evaluation Bulletin for Senior Managers, Issue 4, May 1990, CDIE, p. 2.

34. Hardesty, Sermin and Timothy G. Taylor An Analysis of the Economic Impacts of Non-Traditional Agricultural Export Programs in Central America Chemonics International, April 1994, p. iii

35. Ibid p. 5-6

36. Wilde, Thomas H. Letter to Bruce Brower, dated August 3, 1994, from Caldarone Food Sales, Inc. of Chelsea, MA

37. Costello, Charles E. Letter to Bruce Brower from the USAID mission in El Salvador, dated June 22, 1994

38. Lamb, John E., Building a Prosperous Non-Traditional Agricultural Export Industry in LDCs: Keys to Success, PROEXAG, June 1991